

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE DISTRICT OF NEW JERSEY
3 Civil No. 2:08-cv-05169(WJM)-MF

4 - - - - -X
5 IN RE URETHANE ANTITRUST : TRANSCRIPT OF PROCEEDINGS
6 LITIGATION : - Trial -
7 - - - - -X

8 Newark, New Jersey
9 March 28, 2016

10 B E F O R E:

11 THE HONORABLE WILLIAM J. MARTINI,
12 UNITED STATES DISTRICT JUDGE,
13 And a Jury

14 Pursuant to Section 753 Title 28 United States Code, the
15 following transcript is certified to be an accurate record as
16 taken stenographically in the above entitled proceedings.

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I N D E X

WITNESS	DIRECT	CROSS
KENNETH G. ELZINGA		
By Mr. Bernick	4	
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2 (Trial resumes - Jury not present.)

3 THE COURT: Be seated, please.

4 Good morning. Be seated, everyone.

5 MR. JOHNSON: Good morning. I guess we're all set to
6 go?

7 MR. BERNICK: Yes, your Honor. Thank you for the
8 extra couple of minutes.

9 THE COURT: Okay. Hold on one second.
10 You can bring out the jury I guess, Gail.

11 THE DEPUTY CLERK: Please rise for the Jury.

12 (Jury present.)

13 THE COURT: Welcome back. Good morning -- or good
14 afternoon.

15 Have a seat, please.

16 Okay. Mr. Bernick.

17 MR. BERNICK: Thank you very much.

18 Dr. Elzinga, if you could take the stand for us,
19 please.

20 We call Dr. Elzinga to the stand.

21

22 K E N N E T H G. E L Z I N G A, called as a witness, having
23 been first duly sworn, is examined and testifies as
24 follows:
25

1 THE DEPUTY CLERK: Please state and spell your name
2 for the record.

3 THE WITNESS: Kenneth, K-e-n-n-e-t-h; Gerald,
4 G-e-r-a-l-d; Elzinga; E-l-z-i-n-g-a

5 THE DEPUTY CLERK: Thank you, sir. You may be seated.

6 THE WITNESS: Thank you.

7 THE COURT: Good afternoon. If you could just be sure
8 to speak into the microphone, please. Thank you?

9 THE WITNESS: Thank you, your Honor, I'll try to do
10 that.

11 DIRECT EXAMINATION

12 BY MR. BERNICK:

13 Q Good afternoon, Dr. Elzinga.

14 A Good afternoon, Mr. Bernick.

15 MR. BERNICK: Good afternoon, ladies and gentlemen.

16 Q Dr. Elzinga, could you tell us what it is that you do for a
17 living?

18 A Sure. I'm a Professor of Economics at the University of
19 Virginia where I do research and I teach there.

20 Q What is your title at the University of Virginia?

21 A Currently I'm the Robert F. Taylor Professor of Economics.

22 Q Okay. Is that an endowed chair?

23 A That is an endowed chair. When I started my career at UVA
24 there's kind of a pecking order for professors. I was an
25 assistant professor, and over time if you do your work you get

1 up to something called an endowed chair, which basically means
2 somebody typically with a lot of money gave money to the
3 university to help fund my position.

4 Q Okay. How long have you been at the faculty of the
5 University of Virginia?

6 A I went to UVA -- that's how I call University of
7 Virginia -- fresh out of graduate school in the fall of 1967.

8 Q Okay. Have you been at other schools during this period of
9 time, or have you just been at Virginia?

10 A I've been a visiting scholar at other schools. I've been
11 at the University of Chicago, Cambridge University in England,
12 Trinity University, and Pepperdine University. But UVA is sort
13 of my home.

14 Q Okay. Have you ever been on leave for government service,
15 Dr. Elzinga?

16 A Yes, I have. I was on leave from UVA to be the economic
17 advisor to the head of the Antitrust Division at the Department
18 of Justice.

19 Q Okay. What does the Antitrust Division do?

20 A The Antitrust Division is one of the two federal agencies
21 that enforces the antitrust laws, tries to keep markets
22 competitive, tries to thwart monopolies.

23 Q Okay. Do you have any particular specialty in economics?

24 A My specialty is antitrust economics.

25 Q Okay. I want to put that up on our little scratch pad here

1 in case I want to come back to it.

2 How would you describe for the jury what antitrust
3 economics is?

4 A People in my field of economics, we study markets and we
5 study antitrust policy, and we try to think hard, think
6 analytically about how the antitrust laws can keep markets
7 competitive to benefit consumers and to -- to thwart or deter
8 Monopolies.

9 Q Okay. And we have a copy of your resume, and I want to
10 hand that up to you.

11 A I have one here, MR. Bernick.

12 Q Okay, great. Thank you.

13 A Right on the table here. I don't know where it came from.

14 Q Okay.

15 MR. BERNICK: That's Defendant's Exhibit 8687. We
16 offer it, your Honor.

17 MR. MARTIN: No objection.

18 Q Dr. Elzinga, I see that there are -- your CV has quite a
19 number of publications that are listed, and we're not going to
20 gee through them I assure you, but could you tell us how many
21 of the publications that you have relate to or pertain to the
22 field of antitrust economics?

23 A Well, I can't give you an exact number. Most of my
24 publications -- I have probably over a hundred publications --
25 most of them would be in the field of antitrust economics.

1 Q Okay. While we're on economics I want to ask you some
2 questions about other areas of expertise.

3 First of all, do you have training, formal training in
4 statistics? Are you a trained statistician?

5 A I've taken courses in statistics and I use statistics but I
6 don't consider myself a statistician. I don't teach
7 statistics.

8 Q Okay. Now, there has been testimony by Dr. Marx -- I know
9 you're familiar with Dr. Marx because you've read her reports
10 in connection with this case -- and she is an expert in
11 econometrics. Are you familiar with that?

12 A Yes, I'm familiar with econometrics.

13 MR. MARTIN: Your Honor, if I may, she was also
14 qualified as a expert in economics.

15 MR. BERNICK: I didn't say she wasn't.

16 MR. MARTIN: Just so long as we're clear.

17 THE COURT: What was that?

18 MR. MARTIN: She was also qualified as an expert in
19 economics in addition to econometrics. The question made it
20 seem like it was one thing.

21 MR. BERNICK: I just asked if she was an
22 econometrician, I didn't mean --

23 THE COURT: That's fine.

24 MR. MARTIN: I'm sorry. I didn't mean to interrupt.

25 THE COURT: Go ahead.

1 BY MR. BERNICK:

2 Q So, are you an econometrician?

3 A No, sir.

4 Q What is the difference; what is it that econometrics does
5 that is different from or in addition to economics?

6 A Well, Mr. Bernick, let me respond at two levels. First of
7 all, I use statistics and I use econometrics in some of my
8 research. So, I had an article recently on the economics of
9 the craft beer industry and I used regression analysis to try
10 and explain how craft beer has moved out geographically from
11 different -- across different parts of the country. But that's
12 different than considering myself to be an expert in
13 econometrics. I don't teach econometrics, I have colleagues
14 who do that. I use statistics in my research but I'm not an
15 expert in econometrics.

16 Econometricians work at a different level of
17 statistics that involves hypothesis testing using statistical
18 analysis.

19 Q Okay. So let's talk about something else where you do have
20 a background in and I think also is germane. I see from your
21 resume that you're also a novelist. Would you tell us what
22 that's about?

23 A Sure. I write murder mysteries on the side. I've written
24 four of them. And they're not totally different from my work
25 as a economist. My hero, the central figure is a professor of

1 economics and he solves the crimes using just economic theory.
2 So it's not totally different from what I do as an economist
3 but it's a sideline for me to be a novelist.

4 Q Have these books actually been used in teaching economics
5 at various levels?

6 A They've been used many times in both high schools and
7 colleges not as a textbook but as a kind of a supplement to a
8 textbook.

9 Q Okay. Have they been translated into foreign languages?

10 A They have been translated into seven or eight foreign
11 languages.

12 Q Dr. Elzinga, are you actively involved in the actual
13 teaching? Do you teach students? Are you doing that?

14 A Oh, yes, I'm very involved in teaching. This year I've
15 taught over a thousand students at the University of Virginia.

16 Q Roughly speaking, if you kind of go back over your career
17 and kind of think about the total, about how many students have
18 you taught economics during the course of your career?

19 A The registrar tells me that I'm over 45,000 now, and that's
20 a function partly that I teach some very large classes and the
21 fact that I'm an old guy, I've been there for a long time.

22 Q Is there anyone else at the University of Virginia as you
23 are aware who has taught more courses?

24 A No, sir, there's not.

25 Q Have you won any awards for your teaching?

1 A I have, yes, sir.

2 Q Tell us about them, please.

3 A Well, I'll pick the two that are the most special for me.
4 One was when the University of Virginia set up an endowed chair
5 to honor teaching, not research but teaching, I was the first
6 recipient of that chair. I currently have a chair for
7 research. That meant a lot to me. It was called the
8 Cavalier's Distinguished Teachers Professorship. If you don't
9 know the Cavaliers, it's the name of the sports team at UVA.
10 We had a bad night last night in the NCAAs, but that's the
11 Cavaliers.

12 The other award that means a lot to me is, there's a
13 group of economists in what's called the Southern Economic
14 Association. And the Southern Economic Association was going
15 to give me an award for teaching and they decided instead to
16 name the award after me. So every year now there's an award
17 given for teaching that has my name.

18 Q Okay. Do you teach antitrust economics?

19 A Oh, yes, I do, that's my favorite class.

20 Q Is there a waiting list to get into that class?

21 A It's known to be a tough class to get into. You have to
22 write an essay as to why you want to get in the class and most
23 people wait a couple years to get in.

24 Q Dr. Elzinga, with respect to your work, has your research
25 and writing been cited by the courts?

1 A Yes, some of my writings have been cited by federal courts,
2 including the Supreme Court.

3 Q Can you give us an example of a case that's been cited by
4 the Supreme Court?

5 A The first one was a case called U.S. v. Falstaff. And
6 there may not be anybody in the room to remember Falstaff, but
7 it used to be a major brewer, number four brewing company in
8 the United States. Some people might know that because this is
9 a beer town. But there was a case brought against Falstaff by
10 the Antitrust Division.

11 I had done a lot of research on the economics of the
12 beer industry, I've done that a lot over the course of my
13 career, and the Supreme Court cited some of my research as
14 being I guess helpful in their analysis, if I can put it that
15 way.

16 Q Okay. Have you been involved as an economics expert in
17 antitrust cases that have been decided by the Supreme Court?

18 A Yes, sir. I was the economic expert in three cases that
19 went to the Supreme Court and were decided by the Supreme
20 Court. They were all antitrust cases.

21 Q Okay. Did any of these cases involve allegations of
22 collusion?

23 A Yes, two of them did. The three cases were, lawyers call
24 them Matsushita, Brooke Group and Leegine. And the two of them
25 that involved collusion or allegations of collusion were the

1 first two, Matsushita and Brooke Group.

2 Q Have you ever acted as a consultant to a federal judge;
3 that is, not to a party but to the judge sitting in the case?

4 A Yes, I have.

5 Q Tell us about that, please.

6 A One of the highlights of my career was being asked by Judge
7 Kaplan who sits in New York, he had a case before him, it was
8 very high profile case, it was in the news a lot because it
9 involved a cartel between the two leading art auction houses in
10 the world, Sotheby's and Christie's, and he invited me to serve
11 as his -- he used the term "clerk" in the case. I thought of
12 my role as kind of like a research assistant to him.

13 Q Have you ever taught antitrust economics to judges?

14 A I have a number of times. There's been a seminar on
15 antitrust economics for federal judges and I was one of the
16 members of the faculty for that.

17 Q Okay. Did you give them a final exam?

18 A It was a reading assignment but there was no final exam.

19 Q Let me ask you this question: Have you written about
20 cartels in your scholarly research?

21 A Yes, I have.

22 Q Let me ask you about another topic that we're going to come
23 back to.

24 Oligopoly. (Writing on board) Oligopoly. Are you
25 going to talk about oligopoly with us and the jury today?

1 A I believe I will, yes.

2 Q If we go back into the midst of time, was there a time when
3 you published some of the first pages on the question of
4 antitrust economics relating to oligopolies?

5 A Well, if by "midst of time" you mean in my career, yes.
6 There were people writing about this even before me, but some
7 of my early papers were on cartels and oligopoly.

8 Q Have the scholarly literature, that is, have the
9 publications and antitrust economics in the area of oligopoly,
10 could you tell us whether that has become an extensive area of
11 research or not?

12 A Oh, yes, many, many papers written on cartels and
13 oligopoly.

14 Q Okay. Are you recognized as an authority in the area of
15 oligopolies and antitrust?

16 A Mr. Bernick, I'm going to dodge that. I think "expertise"
17 and "authority" is something that somebody else confers on you.
18 I don't mean that out of false modesty. It's --

19 Q I thought I would pop it on you and see if you would bite,
20 and I guess not.

21 Have you always been a consultant to defendants in
22 litigation?

23 A No, I've been a consultant a number of times to plaintiffs
24 in antitrust cases.

25 Q You mentioned that at some point that you were employed as

1 the economic advisor to the assistant general -- Attorney
2 General for Antitrust. Of the two agencies that enforce the
3 antitrust laws, the Antitrust Division and the Federal Trade
4 Commission, have you ever testified on behalf of one of those
5 agencies; that is, on behalf of those agencies for antitrust
6 enforcement?

7 A Yes, I've been an economic expert for both of them,
8 testified for both the Antitrust Division and the Federal Trade
9 Commission in the antitrust cases.

10 MR. BERNICK: Your Honor, we proffer Dr. Elzinga as an
11 expert in the field of antitrust economics.

12 MR. MARTIN: No objection.

13 THE COURT: All right. Again, ladies and gentlemen,
14 as I explained to you before with Dr. Marx, an "expert" means
15 they're entitled to testify as to opinions and relating to
16 their expertise. Typically a witness is only entitled to
17 testify as to what they observe, what they see, what they hear.
18 But if someone is qualified, as Dr. Elzinga is, they're
19 permitted to testify as to opinions in their discipline of
20 training.

21 Okay. Go ahead.

22 MR. BERNICK: Thank you, your Honor.

23 BY MR. BERNICK:

24 Q Professor Elzinga, what was your assignment in this case?

25 A My assignment in this case was to do an economic analysis

1 of the allegation that the major producers of urethanes had
2 entered into an agreement to fix prices.

3 Q What did you do in just general terms to carry out that
4 assignment?

5 A Just in general terms?

6 Q Yes.

7 A Yeah. Well, I read a lot. There's a lot of stuff in the
8 record to read; I interviewed executives, people who were in
9 the trenches selling urethanes; I actually subscribed to some
10 trade journals in the urethane industry; I had a group of
11 economists who worked with me to help me analyze data and other
12 records and do analysis of the materials; and thought about all
13 this a lot. In general terms that's what I did.

14 Q Let me just be clear. Were you assisted in your research?
15 I think you said that you were, but if you could just talk
16 about who it was that assisted you.

17 A Oh, sure, sure.

18 There were some economists in Princeton who assisted
19 me in my research in terms of helping me with everything from
20 gathering articles -- I'm very fussy about not trying to mix my
21 consulting work with my job at the University of Virginia, so
22 if I wanted an article produced the people in Princeton would
23 get that for me. If I needed data analyzed or statistical work
24 done, they would assist me in that.

25 Q I want to give the jury a sense of how you fit in with

1 other testimony, other expert work that they have heard and
2 that they're going to hear. And I've divided the world into
3 testimony, expert testimony on conspiracy and expert testimony
4 on the impact of any conspiracy and damages. That's just how
5 I've divided it up.

6 And are you familiar with the fact that Dr. Marx for
7 the plaintiffs here developed a statistical model to address
8 any impact and damages?

9 A Yes, sir, that's my understanding.

10 Q And she said that this was an econometric model.
11 Econometric model.

12 Is that as you understand it, what it is?

13 A Yes, that's my understanding.

14 Q Now, are you here to talk about the ins and outs of that
15 model?

16 A No, sir.

17 Q Is there a defense expert that you are familiar with by
18 reason of your work on the case who is going to address this
19 model on behalf of Dow?

20 A That's what I understand Dr. Ugone will do.

21 Q Let's go over to the conspiracy side.

22 Do you have an understanding -- Dr. Marx has been here
23 and has testified to this -- but is it your understanding that
24 Dr. Marx does not offer an expert opinion on whether there was
25 a conspiracy?

1 MR. MARTIN: Your Honor, I'm going to object on
2 leading grounds.

3 MR. BERNICK: This is foundational for my next
4 question.

5 THE COURT: If that's your objection, overruled.

6 Q Is that your understanding?

7 A That's my understanding, yes, sir.

8 Q What about you, Dr. Elzinga, are you going to offer an
9 expert opinion on whether there was a conspiracy?

10 A Yes, I plan to. The only kind of footnote or amendment --
11 and I don't mean to be overly professorial here -- is the term
12 that I will use, it's the term that antitrust economists use,
13 is a "cartel."

14 Q A cartel.

15 In the process of offering testimony in this area,
16 will you or will you not have reference to articles that Dr.
17 Marx has published in the economic literature on that subject?

18 A Yes, either an article or her book on the subject.

19 Q Let's go to the beginning of your analysis.

20 When you start to teach how competition works to your
21 students, what do you start off with? And I've given you -- I
22 think you have a marker, so if you want to come up to the board
23 like you would in class, what do you start off with when you
24 teach your students about how competition works?

25 MR. MARTIN: Your Honor, I'm just going to stand up

1 over here because I can't see.

2 THE COURT: That's fine, go ahead.

3 MR. MARTIN: I don't want to...

4 A I'll try to speak in such a way that you can hear me, but
5 also Mr. Perelli.

6 So when I start teaching competition to my principals
7 class -- so this is a big class, it's a thousand students in
8 total -- where I start is with a theory or a model called
9 "Perfect Competition."

10 Q Just squeeze that on.

11 A And I'm going to try to stand over here so you can see it.
12 I never like teachers that write something and you can't see it
13 on the board in front of them.

14 Q Go ahead.

15 A So here's the characteristics of perfect competition that I
16 want to stress. It has lots of sellers, and then something --
17 and this is a little bit of an econ term -- easy entry.

18 So any market that is perfectly competitive, the real
19 heart of it is there's lots of sellers in that market, lots of
20 firms competing for patronage of consumers, and it's an
21 industry that without a lot of trouble people are going to
22 enter it, they can also exit. So we talk about having easy
23 entry and easy exit. Those are the main characteristics of
24 having perfect competition, and that's where I start when I
25 start teaching about competition.

1 Q Next.

2 A We go from there to kind of a polar opposite, and that's
3 monopoly. So perfect competition versus monopoly. And the
4 characteristic about a monopoly, we have one seller, and entry
5 is difficult.

6 In teaching the theory of monopoly, to really get it
7 across I ask them to assume that entry is simply blocked. So
8 if you're a customer in the market and you're dealing with a
9 monopoly, you've got one seller. There's no competition,
10 there's no rivals you go to. And those are the ways that I
11 begin teaching the theory of competition. Perfect competition
12 versus monopoly.

13 Q What about this case, when we talk about the urethanes
14 industry in particular, which category does the urethanes
15 industry fit in, if any?

16 A Neither one fits, because in the urethanes industry you
17 have essentially at the time of this case, five major sellers.
18 So you didn't have lots of sellers and it's not easy to get
19 into the urethanes industry. So this doesn't fit. Monopoly
20 doesn't fit either because there's not just one seller, there's
21 several.

22 So in my teaching, what we do then is we go to an
23 intermediate theory. And that intermediate theory is -- it was
24 already on the board once but I'll spell it out again -- and
25 usually this is a brand new term to my students. They've heard

1 the term "competition," they've heard the term "monopoly." But
2 oligopoly, frequently at least at the introduction level, is,
3 where did that come from? I've never heard that before. They
4 hear it a lot by the time the semester ends.

5 Q That's where it was?

6 A That's where it was.

7 Q And, Dr. Elzinga, could you just tell us in -- and I think
8 you probably have -- but literally, what does that word mean?

9 A Well, literally it means "few sellers."

10 Now, the word "few," my students always like to have a
11 real clear answer: You know, is there one number that's few?

12 And I tell them no. It's more than one, so we're
13 talking about two at least.

14 I tend to think of an oligopoly as somewhere between
15 two and eight sellers. So in the urethanes industry at the
16 time period you're all thinking about it is basically five
17 sellers, so it kind of falls in between the two and the eight,
18 but definitely few.

19 Q Do you have a demonstrative, Demonstrative Exhibit 1 that
20 talks about or features some of the other properties of an
21 oligopoly?

22 A I do. I don't know where it is right now but --

23 Q We can show it.

24 MR. BERNICK: Can we pull up Elzinga Demonstrative
25 one?

1 Q I think it will be also on your screen if you want to go
2 back over there to talk about it. Is it not --

3 A May I just go back there?

4 I can see it from up here but --

5 Q Why don't you just go through -- I think you may have
6 already covered the first two bullet points, but why don't you
7 just go to the third and then the fourth bullet points and
8 explain what these are about.

9 A Sure. So I've got this right in front of me here. This is
10 cool.

11 So few sellers, but more than one; more competitors
12 than a monopoly, that's only got one seller; fewer competitors
13 than perfect competition, which has many sellers; and then this
14 fourth bullet point I want a spent a little time on.

15 You see the term "strategic interdependence." And I
16 put it in parenthesis "chess game." It could be checkers as
17 well; a game where you're playing your opponent and you're
18 making a move. Before you make the move, you think, well, what
19 would my opponent do if I take this move? So you're always
20 trying to think a step ahead of what your opponent would do in
21 a chess game or a checkers game.

22 And it's the same way in an oligopoly because there's
23 just a handful of sellers where one seller is thinking of
24 taking a move on a price or building a new plant or some major
25 move in the marketplace. That seller in an oligopoly will be

1 thinking, like in a checkers game: What will this other
2 oligopoly, this other oligopolist, this other firm in the
3 market, what is it going to do when I make that move?

4 So that's why I summarize here on the last line, each
5 firm's decisions will depend on what it expects other firms to
6 do.

7 And that doesn't happen in perfect competition because
8 there's so many sellers, and it doesn't happen in a monopoly
9 because there's only one.

10 Q In order to kind of get everybody in the swing of what this
11 "chess game" kind of looks like, can you give just a simple
12 example, a hypothetical example --

13 A Sure.

14 Q -- of how strategic interdependence actually works within
15 an industry?

16 A Sure. Take the soft drink industry where you have a number
17 of sellers but basically two big firms are Coca-Cola and Pepsi
18 Cola. So imagine that you're Coca-Cola, and some major thing
19 happens in the marketplace, the price of aluminum goes down.
20 That's a big deal in the soft drink industry because they buy a
21 lot of aluminum for making all the cans for the containers.

22 So you're thinking, okay, my costs have gone down.
23 Maybe the price of aluminum went down to Pepsi as well. I'm
24 not sure about that but it could very well. So should I take
25 my price down in response to this cost advantage I now have?

1 Well, if I do that, I might get a strategic advantage
2 on Pepsi and be able to pick up a lot of sales. But, on the
3 other hand, Pepsi may also have experienced the same cost
4 reduction if their aluminum prices went down. So if I take my
5 price down, Pepsi might do the same thing so we're both left
6 with lower prices for our product. So I may think: I'll keep
7 my price up and see what Pepsi does.

8 Pepsi, on the other hand, is thinking the same thing.
9 They may have heard that Coke's aluminum cost went down,
10 perhaps it did, perhaps it didn't, and they're thinking, what
11 ought I do strategically now that I understand Coke may have a
12 cost advantage?

13 And oligopoly is -- and that's why I like the term
14 chess or checkers -- it's a game in which people are trying to
15 think through: What move ought I to take?

16 And unlike a firm in perfect competition or monopoly,
17 I'm always going to be thinking: What likely will be the
18 response of my rivals?

19 That's why economists often uses this term, "strategic
20 interdependence." There's strategy going on; and why.

21 Because in an oligopoly, the firms are interlinked or
22 they're interdependent in their actions and that's not true in
23 perfect competition or monopoly.

24 Q Two questions. "Strategic interdependence" is kind of a
25 mouthful so I'm just going to try something out, you tell me if

1 it works or not. What about the idea of the word
2 "parallelism"; do oligopolies engage in conduct that has
3 parallelism to it?

4 A Well, they could. In my example, if after Coke gets this
5 cost decrease in aluminum and they decide not to pass that on
6 because they think Pepsi may not also pass their cost advantage
7 on, then the price may stay where it is to use your term
8 parallel. But it's not necessary. Oligopoly, there's a lot
9 going on that are strategically interdependent that may not
10 result in exactly parallel behavior.

11 Q The second question. What are you talking about when you
12 talk about a chess game? It makes it sound like, I mean, it is
13 a game. Is this kind of an academic theory or is this actually
14 how the business works based upon your own experience?

15 A Well, it's both. I mean, it is an academic theory. In
16 fact, a lot of economists who work in this theory call it
17 "games theory," that's what they call it, and it's used to
18 study oligopolies, it's actually used to study countries in
19 terms of military endeavors, the same kind of idea of strategic
20 interdependence.

21 It's also something that you can encounter in the real
22 world. There is in oligopolies this strategic interdependence
23 among sellers.

24 Q Fair enough.

25 So I now want to get to the specific issue that you've

1 addressed. You've now situated us in the world of oligopoly
2 and we're here in an industry that is an oligopoly.

3 When it comes to your own work, have you formulated a
4 central question that you've addressed?

5 A Yeah. The central question that I've addressed is whether
6 the urethanes industry during the time frame that you're
7 thinking about it is characterized as a cartel or an oligopoly.
8 That is the central question that I address.

9 Q Okay. Do you have a demonstrative that again goes through
10 and frames this issue?

11 A I do, yes, sir.

12 Q I want to show you Demonstrative Number 2. And we've made
13 a big chart of it.

14 Is this a demonstrative that you worked up to talk
15 about the central issue that you've addressed?

16 A Yes, sir, it is.

17 Q Okay. Could you just -- let me just ask -- make clear
18 where I'm going to ask the questions. The Court, of course,
19 will instruct the jury with respect to the law on conspiracy
20 and cartel. All the questions I'm going to ask you are
21 questions about what economics says, not what the law says.
22 The jury will -- so just to be clear, all the questions I'm
23 going to ask you really are designed to elicit your views about
24 what economics says. Can we operate on that basis?

25 A Great. I'm not qualified to talk about the law anyway,

1 so...

2 Q Okay. As a matter of economics, what is the main
3 difference? When does an oligopoly become -- when could it
4 become a cartel?

5 A Yeah. Well, let me use this slide -- is that what you call
6 it?

7 Q Yes, the slide.

8 A -- this picture to try to illustrate the difference.

9 So I've got oligopoly versus cartel.

10 So an oligopoly is characterized by individual
11 decision-making; that is, firms in the oligopoly have not
12 entered into an agreement, they're not in cahoots with one
13 another on the price they're going to charge, the output
14 they're going to charge.

15 As I put in the second bullet point, they decide on
16 their prices independently.

17 But in this third bullet point -- and this is the
18 characteristic of the oligopoly that I mentioned earlier -- the
19 seller decisions take account of their connection, their
20 strategic interdependence with their competitors, and that's
21 what makes oligopoly different from perfect competition and
22 from a monopoly.

23 Now, you go over to the cartel side on the right-hand
24 side, you have collective decision-making by the firms; that
25 is, as the second bullet point indicates, the sellers agree on

1 the prices as a group.

2 Now, if I could just put a footnote on that a minute.
3 Some cartels don't have an agreement on price. They might
4 agree that this group of firms in the cartel will sell west of
5 the Mississippi and the other group will sell east of the
6 Mississippi. That would be a geographic market division.

7 They might divide up customers: I'll never go after
8 this customer and you have never go after that customer. But
9 most cartels agree on the prices. And in agreeing on prices
10 they have necessarily agreed not to compete. They're not going
11 to compete on prices.

12 Now, the next two bullet points I want to stress here
13 because they're an important part of cartel theory. Once this
14 agreement has been made in a cartel, that we're going to jack
15 the price up and we're all going to charge this price up here,
16 as this bullet point indicates, the sellers have an incentive
17 to cheat on the cartel agreement. And I put that word "cheat"
18 in quotes. It's a technical term that we use in cartel theory,
19 but it's been interesting for me in terms of my work studying
20 real world cartels, people in cartels often use that term as
21 well. And the incentive is to cheat on the agreement; that is,
22 to cut the price and expand output. And the reason for that
23 is, is once the cartel has set the price up at this level it's
24 very profitable. And if you can get some incremental sales,
25 some additional sales by shaving the price, those are very

1 profitable sales to make.

2 So there's an economic incentive to cheat on the
3 cartel agreement, and that leads to the fourth bullet point
4 here: In order to have a cartel the sellers have to be able to
5 monitor one another, to check up on each other; and if there is
6 a cheater, to somehow discourage the cheater, to somehow punish
7 the cheater or thwart the cheater.

8 Q Thank you, Dr. Elzinga.

9 Let's go back on this side for a moment and then this
10 side for a moment as well just to focus on some particular
11 points.

12 First of all, strategic interdependence. I don't know
13 that you actually have made a reference to the economic
14 literature on strategic interdependence and I want to show you
15 Elzinga Demonstrative Number 3, Demonstrative Number 3 in
16 dealing with this last point here.

17 MR. BERNICK: If we could show Demonstrative Number 3.

18 Q Could you tell the jury -- it's up on the big screen and up
19 on the small screen -- who Scherer and Ross are?

20 A Sure. Scherer and Ross are economists who specialize in
21 antitrust economics and this is from a textbook that they've
22 written, this quote, and it goes to the point on strategic
23 interdependence.

24 They're talking about an oligopoly and they say that
25 each firm in an oligopoly recognizes that its best choice

1 depends upon the choices its rivals make.

2 So the firms are interdependent -- there's the term
3 interdependence -- and they're acutely conscious of it. Their
4 decisions depend then on the assumptions they make about rival
5 decisions and reactions.

6 Q Let's get down to this competition point.

7 So you have strategic interdependence. When you have
8 that, is that good or bad for competition?

9 A Frankly, I don't think of it as good or bad it's just the
10 way competition works in an oligopoly.

11 Q What about profits; can oligopolies make high profits?

12 A Sure they can. If you had an oligopoly and, let's say,
13 demand was increasing and supply was scarce, say you had an
14 oligopoly of three firms, one firm sees demand increasing,
15 there's customers clamoring for their output, they probably
16 recognize because there's only a handful of sellers that their
17 rivals face the same situation and they might take the price up
18 thinking that their rivals are acutely conscious of this, to go
19 back to the Scherer and Ross quote, they're interdependent,
20 their rivals may follow them up, in which case all three of
21 them make high profits.

22 Q Can they also lose money?

23 A Sure, oligopolies can lose money. Think of -- I sometimes
24 use this example with my students -- the typewriter industry.
25 Many of them don't know what a typewriter is anymore. But, you

1 know, it was pretty much an oligopoly at one time, and then
2 word processing came along and as these firms, IBM, Remington
3 Rand, Olivetti were interdependent on what was happening in a
4 falling market, they all lost money and have exited. Olivetti
5 may still make typewriters.

6 Q With respect to this issue of interdependence, I want to
7 cover a couple other points, and I'm going to put them down
8 here.

9 We talked about, can they make money and lose money.

10 Here's another question that I want to ask you: Can
11 oligopolies reduce customers' options.

12 You have no cartel, just oligopoly. Can the fact of
13 there being an oligopoly reduce customer options, particularly,
14 for example, in strong markets?

15 A I'm sorry, in what?

16 Q Strong markets. Or any kind of market. Just take it
17 however you want to answer it.

18 A Well, if I understand your question, the oligopoly doesn't
19 reduce options itself in the sense that if there's four firms
20 in the oligopoly, then there are four firms in the market keep
21 competing for customer patronage.

22 If there is a strong market and each oligopolist, each
23 of the four knows this and thinks that demand is very robust
24 and supply is short, then the amount of price competition that
25 occurs in the oligopoly probably will be reduced. In like

1 fashion, if the demand is weak, then there's probably going to
2 be more price competition as these oligopolists play this game,
3 this chess game about options they have in a market where
4 demand is falling.

5 Q Versus competition. Does the consumer have more or fewer
6 options in an oligopoly?

7 A Well, in perfect competition, if I understand your
8 question, the consumer has more options because there's lots of
9 sellers.

10 Q Okay. So you've talked a lot about competition. An
11 oligopoly that's not a cartel, tell us whether there should
12 still be competition.

13 A Sure, there's still competition. An oligopolist has to
14 attract a customer to buy its output.

15 Q If we're in a cartel situation, what would you expect in a
16 cartel situation -- let me go back. You've got -- people have
17 got to make decision-making on both sides; one's an individual,
18 the other is collective. Prices. Sellers decide
19 independently. Here sellers agree. So I'm now going down to
20 competition.

21 If you've got a cartel, an oligopoly that's become a
22 cartel, what would you expect with regard to whether you will
23 see competition?

24 A I wouldn't expect to see competition if the cartel has
25 agreed to eliminate competition by a conspiracy or an agreement

1 among them to -- to all charge the same price and not to
2 compete on price anymore. And that's the nature of a cartel.
3 It takes away choices and options for consumers.

4 Q This distinction between able to see competition where
5 there's an oligopoly and not expecting to see competition where
6 it's a cartel, tell us, tell the jury whether this had impact,
7 just generally, on the analysis that you did. Competition;
8 don't expect to see competition.

9 A Sure. The analysis I did, what essentially I was looking
10 for is to see whether the evidence in this industry was that of
11 an oligopoly, strategic interdependence among the firms in
12 their pricing decisions; or a cartel, where the price was
13 rigged in accord with the mechanics of how the cartel
14 purportedly operated.

15 Q Okay. When you summarize the economics of cartels for your
16 students at the University of Virginia, what do you tell them?
17 What's the bottom line about cartels?

18 A Here's what I hope my students at UVA take away from the
19 part of my class that deals with cartels: One is, that when
20 there's a cartel consumer welfare is reduced. That's just real
21 clear from cartel theory that I teach. It's clear from real
22 world examples that cartels are bad for consumers. So I want
23 them to understand that. Cartels raise price, they restrict
24 output. The theory teaches that, the evidence shows that.

25 But the second point is usually, one, they don't bring

1 into the classroom, and that is that cartels are inherently
2 fragile. They contain within themselves the seeds of their own
3 destruction, and that's the problem. Because once the cartel
4 goes into operation and raises the price, each individual
5 member of the cartel is better off if it cheats, it will make
6 more profit than the people who are in the cartel.

7 And so an effective cartel has to deal with the
8 cheater problem. It has to somehow be able to monitor that
9 everybody's on board with this agreed upon price, to be able to
10 check on that, and then if somebody deviates -- and the
11 language I use, if someone cheats -- there's got to be some way
12 to call that cheater out or punish the cheater or somehow
13 thwart that cheating, otherwise the cartel unravels.

14 Q Okay. I want to turn then to the analysis that you have
15 done in order to decide between these two in this case. Okay?
16 And for that purpose I have another board.

17 MR. BERNICK: We'll put this over.

18 (Mr. Bernick confers with the tech off the record.)

19 Q I want now to talk about the analysis that you did in
20 deciding between these two kinds of -- these two kinds of
21 businesses and the conduct in these businesses.

22 I've got on the right side a cartel theory, and on the
23 left side your analysis.

24 Have you taken a look to see from Dr. Marx's testimony
25 and from the opening statement in this case whether the

1 plaintiffs in this case have a theory for the alleged cartel?

2 A Yeah, they have a theory or a characterization of how the
3 cartel purportedly operated.

4 Q Are there two demos, demonstratives that we can show the
5 jury to reflect the verbalization, the description of the
6 theory that you have found to be useful?

7 A I believe so, yes.

8 Q Okay.

9 MR. BERNICK: Let's put up Demonstratives 4 and 5.

10 We'll just begin with 4 which comes from the opening.

11 Q It says: "The evidence will show that the co-conspirators
12 advanced the conspiracy by sending out lock-step price increase
13 announcements to their customers."

14 And then the next two slides are from -- did you look
15 at this in connection with your work?

16 A Yes.

17 Q And there, the next slide which is Elzinga Exhibit 5, comes
18 from the testimony of Dr. Marx at pages 20 and 109 in the trial
19 transcript. Did you look at these as well?

20 A Yes, I did.

21 Q The first one says: (Reading) My understanding is that
22 the -- I think this used to be in the transcript -- it, the
23 alleged conspiracy was an agreement to suppress competition,
24 efforts to achieve consensus about price increase and efforts
25 to try to make those price increases effective.

1 And then my understanding -- and this is at page
2 109 -- is that one component of trying to achieve consensus
3 about price increases and making those effective was to
4 coordinate price increase announcements.

5 Do you see that?

6 A Yes, sir.

7 Q So based upon that I've marked down "price increase
8 announcements" because it's there, and I'm going to put down
9 "actual prices charged."

10 As you understood the theory of cartel, based upon
11 what you see there, how did you put together -- what did you
12 think the theory was based upon this information?

13 A My understanding of the theory of the plaintiffs' case and
14 what Dr. Marx indicated, particularly in the second bullet
15 point, is that there was a cartel, or in legal terms, a
16 conspiracy among the major producers of urethanes, and the
17 lever or tool that they used was to coordinate on their price
18 increase announcements to make them the same; to agree on them.

19 Q What about actual -- what was -- you say it was a "tool."
20 And the slide refers to "making those price increases
21 effective."

22 What was your understanding of that?

23 A My understanding is that price increase announcements
24 somehow had a connection to the prices people paid; that is,
25 you can't make money off a price increase announcement, it has

1 to stick if the cartel is going to be effective. It's the
2 actual price that you take to the bank, it's not the price
3 increase announcement.

4 Q So agree, coordinate price increase announcements; make
5 them stick in actual prices?

6 A Yeah. "Stick" is a word I sometimes use, or maybe a better
7 word is "effective."

8 Q Now I want to go through the analysis that you've done over
9 here and, again, just to kind of chart things out and we'll go
10 through it.

11 Did you examine the subject of price increase
12 announcements (writing on board)?

13 Well, that's terrible. I'll fix it later.

14 Did you do that?

15 A Yes, I did.

16 Q What about actual prices, did you look at that?

17 A Yes, I looked to see the connection between the price
18 increase announcements and the money that the seller takes to
19 the bank, the actual price.

20 Q What about between the announcements and the actual prices,
21 was there something that you examined in between?

22 A Well, I looked to see if there was a connection between the
23 price increase announcement and the actual prices. I also
24 looked to see whether the price increase announcements were
25 themselves typically simultaneous.

1 Q Okay. Well, let's go down this first column, and then
2 ultimately we'll fill this in and go down the second column.

3 With respect to price increase announcements, let's
4 talk about what the price increase announcements that you
5 looked at were. Did you examine the process whereby price
6 increase announcements were made in this industry?

7 A Yes, I did.

8 Q Okay. And so we're reading off the same page with the
9 jury,

10 You have a price increase announcement. What form
11 would that generally take? What would it say?

12 A Typically in this industry -- this is not unusual in
13 urethanes, true in a lot of industries -- that seller will
14 announce that on a certain date, typically 30-days from now in
15 this industry, they plan to raise their price \$.06, \$.05, \$.08,
16 whatever is the amount in the price increase announcement.

17 Q So you have an effective date?

18 A Typically. It's often 30 days from the date of the
19 announcement, it could be 60 days. But the seller is aware
20 that something is going to happen in 30 days or 60 days,
21 whatever the announcement says.

22 Q And the buyer as well?

23 A And the buyer is aware, of course. Thank you.

24 Q And if it's \$.06 up there has to be an existing price.
25 Right?

1 A Presumably it's a six-cent increase off of what was the
2 prevailing price.

3 Q Okay. When you have these price increase announcements,
4 did you analyze the question of whether they served a purpose,
5 why there were price increase announcements?

6 A Yes, I did.

7 Q Okay. And what did you find out?

8 A The reason I'm hesitating, it isn't something I found out
9 in this case.

10 Q Okay.

11 A I've known this for a long time. Most customers prefer an
12 announcement in advance that prices are going to go up. Now
13 I'm going to be clear on how I say this: Nobody is happy to
14 have the price go up, but if the price is going to go up, most
15 customers like to know that in advance so they're not
16 surprised. Some of them will increase their purchases to take
17 advantage of the lower prices against the chance the price will
18 actually go up. So customers usually prefer price increase
19 announcements rather than be surprised.

20 Q Did you learn about the timing of price increase
21 announcements in this industry?

22 A Yeah. In urethanes the major producers tended to have
23 their price increase announcements at roughly the same time.

24 Q Is that something that is unusual in an oligopoly?

25 A No, it's to be expected in an oligopoly because the sellers

1 are interdependent with one another.

2 Q Does the fact that there are price increase announcements
3 that were made in this industry about the same time, does that
4 help you decide on oligopoly versus cartel? Does that help you
5 say that the cartel theory worked?

6 A No, you need to know more. You need to know whether
7 there's a connection between the price increase announcements
8 and the actual prices charged.

9 Q Did you come to understand and see that the -- what did you
10 see about the amount of the announcements at the time --

11 A Well, they were different, depending -- I mean, there were
12 different price increase. Sometimes it was \$.06, sometimes it
13 was \$.04, sometimes it was \$.10.

14 Q What about among the suppliers; did you observe whether the
15 price increase announcements made by the suppliers tended to be
16 the same as one another, or different from one another?

17 A I'm sorry. Yeah, tended to be about the same. Not always,
18 but tended to be.

19 Q Again, is that something that you would expect or not
20 expect if you have an oligopoly?

21 A That wouldn't surprise me in an oligopoly.

22 Q All right. Does that tell you that there was a cartel?

23 A No, it does not.

24 Q Could you just kind of run through an example of how it
25 would be that suppliers making individual decisions would come

1 to make the same price increase announcement. Why would that
2 happen? Give us an example.

3 A Sure.

4 So, I'll use an example of the ketchup industry.
5 There's basically three big producers, Heinz, I think that's
6 the largest, DelMonte and Hunts.

7 Let's say that -- I'll pick on Heinz -- Heinz decides
8 to try and take prices up and they issue a price increase
9 announcement of \$.10. It's an oligopoly. There's only a
10 handful of sellers.

11 Del Monte may have been thinking about taking a price
12 increase announcement of \$.20, but they look at see Heinz only
13 went up \$.10. They then have to decide in this checkers game,
14 this chess game: Well, if I go up \$.20 I might lose a lot of
15 customers, so maybe I should be cautious here and issue a price
16 increase announcement of \$.10. Hunts may have been thinking of
17 a price increase announcement of \$.05, but then they notice
18 that Heinz went up \$.10, and so they may sit down and talk
19 about this market and where they think it's going and decide,
20 well, we'll be a little more aggressive, we'll go up \$.10 as
21 well instead of the \$.05. And the result is through this
22 strategic interdependence each one issues a price increase
23 announcement of a dime.

24 Q Did you prepare a demonstrative that illustrates the way
25 you think, the way you think in antitrust, and antitrust

1 economists would think about price increase announcements as
2 part of an oligopoly?

3 A I did, yes, sir.

4 MR. BERNICK: Could we show Demonstrative Number 6.

5 Q I think that you've covered the fact that there is value,
6 there's customer preferences, it's preferable to the customers
7 that they may be issued by rivals at the same time even in the
8 absence of a cartel and in the same amount in the absence of
9 the cartel. I think you've already covered those.

10 A Yeah.

11 Q Could you talk about the last point that's on there?

12 A Sure. The last one, I'll read it and then I'll just
13 briefly explain it. I hope it's somewhat self-explanatory.

14 The same amount of an increase does not -- that is, if
15 you had a situation where you had an oligopoly and at about the
16 same time each firm in the oligopoly issued a price increase
17 announcement about the same amount, that doesn't mean that the
18 actual price to the customers will be the same, because the
19 actual prices are not the announced prices. The actual prices
20 are what the buyers and sellers negotiate between themselves,
21 as I put it here. The actual prices are negotiated between
22 individual customers and sellers. That's the transaction
23 price. That's the price that if there's a cartel, it has to
24 effect. That's the price, to use my expression, that you can
25 "take the money to the bank." You can't take the money to the

1 bank off of a price increase announcement.

2 Q So the same announcement doesn't equal the same transaction
3 or actual price?

4 A It does not.

5 Q Okay. Now, is this something that is simply your opinion,
6 or is it something that we can find in the literature?

7 A Well, it's not either/or. It's my opinion and it's in the
8 literature.

9 Q You're always ahead of me.

10 MR. BERNICK: So do we have a Demonstrative Exhibit 7
11 which quotes a publication in the literature on this subject?

12 If we show Exhibit 7.

13 Q What's this?

14 A This is a quote from the literature, and it's talking about
15 industrial purchases, which is urethanes, it's a type of
16 product we're talking about here. The publicly announced price
17 is not a binding commitment a price. These are not posted
18 price markets.

19 And then these next two sentences are really important
20 here: The transaction price -- that's the net net price,
21 that's the price somebody pays -- is determined through
22 competitive processes, usually procurements.

23 So a public price announcement is a communication to
24 the market by a seller that may have no affect on transaction
25 prices. No affect whatsoever.

1 Q And who's the author? Among -- who, who do we find are the
2 authors of this paper?

3 A This is Professor Marx

4 Q Let me see where I am.

5 What does it say to you, this quotation as an
6 antitrust economist?

7 A Well, what it says is -- I don't know how to rephrase it
8 really better than this. The public price announcement, it's
9 like the word Professor Marx uses, it's a communication, it's a
10 signal to the market: This is where I'd like to price to go.
11 But then we get into this negotiation or what she calls the
12 competitive process. And by the time this competition works
13 itself out in an oligopoly with these types of industrial
14 products, there may be no connection between that announced
15 price and the actual transaction price.

16 She puts it very strongly here: "It may have no
17 effect on transaction prices, it may have some affect."

18 My point is -- and it's the point of the economics
19 literature -- in an oligopoly there's not a lock-step
20 connection between a price increase announcement and what
21 people actually pay in the marketplace.

22 Q I want to go back to the cartel theory.

23 You said the cartel theory as you understood it was
24 agree or coordinate, agree/coordinate price increase
25 announcements.

1 If that's all that there was, economically,
2 economically could there be a cartel?

3 A Yeah, that's a really interesting question, Mr. Bernick.

4 As a matter of just cartel theory, I don't see how
5 there could be, because cartel theory teaches me that the
6 cartel is trying to increase the price that the customers pay.
7 It doesn't make any sense to have a cartel if you don't get
8 higher prices as a result. And if all you're doing is
9 coordinating on the price increase announcements and then
10 there's no coordination on the actual price, you really don't
11 have a cartel.

12 But in some ways it's even more complicated than that,
13 because you've got this two-step process because you increase
14 the price, but then you have this price over here that the
15 customer pays. And for the cartel to be effective you've got
16 to know, the cartel has to know what price that is. Are people
17 agreeing to it?

18 If we eliminate the competition, can we monitor the
19 cartel members on that? Can we make sure they're not cheating?
20 If they are cheating, can we stop them? Can we thwart them
21 somehow? Can we punish them?

22 And the simple agreement on the price increase
23 announcement doesn't have any of that.

24 Q That's when you get back to these other things on cheating
25 and monitoring in cartel?

1 A That's right. Cartel theory teaches: Can I have some way
2 to monitor each other?

3 You have to have some way to discourage cheating.

4 Q Now I'm going to go back to your \$.06. So you've got an
5 existing price, and then there's an announcement. It says, on
6 the effective date we -- we the suppliers coordinating, are
7 going to go up \$.06 a pound.

8 Now, the time goes by -- and we're going to talk about
9 negotiation in a minute -- and it turns out that on the
10 appointed day it's not \$.06, but it kind of -- dust all
11 settles, it's \$.03.

12 Does the fact -- let's assume that there was agreement
13 on the six and it ended up being three. Does that tell you
14 you've got a successful or a viable, economically viable cartel
15 like the plaintiffs are saying? Can you say, oh, well, that's
16 the plaintiffs' theory, is it's \$.06, but if it ends up being
17 three that's okay because that's better?

18 MR. MARTIN: These are just so leading. Can we have
19 just real questions instead of leading questions?

20 MR. BERNICK: I'll rephrase it.

21 THE COURT: I'll sustain the objection.

22 Go ahead.

23 Q So I want you just to assume that it's the theory,
24 agreement on the coordinated price increase announcements, and
25 trying to make them stick. I want you to assume that.

1 If the price increase announcements are six but they
2 turn out -- the actual prices turn out to be three, tell us
3 whether or not that tells you that the theory is correct.

4 A Here's how I would look at that situation. If you had a
5 cartel and they said, okay, we're going to get together and
6 we're going to issue a price increase announcement, all of us
7 together in cahoots with one another go up \$.06, and that's
8 what we make public so everybody sees that out in the public,
9 but then we have an interior agreement among us that we'll only
10 go up \$.03. I'm not sure why a cartel would do that. But if
11 that's what they did, we'll say publicly to everybody, we're
12 going to go up \$.06, but privately we've agreed to go up \$.03.
13 Then the evidence of trying to see whether that cartel was
14 effective is whether you would find that the prices stuck at
15 the three-cent level instead of the six-cent level, because
16 that was the agreement to go up six publicly, but privately
17 we're only going to go up three.

18 Q So that agreement would be: Agree up six; agree settle for
19 three?

20 A That's right.

21 Q Is that your understanding of the theory that says: Agree
22 to coordinate the price increase announcements, and make them
23 stick, or is that a different theory?

24 A I think that's a different theory. I haven't seen the
25 theory that the cartel, the alleged cartel would go up a

1 certain amount publicly but then go up a certain amount
2 privately and they would agree to that among themselves.

3 Q Okay. So I now want to take the next step on the chart.
4 We talked about price increase announcements, and I think that
5 if we go back to Professor Marx's comment in her writings --
6 incidentally, did you ever see that that was in her report in
7 this case?

8 MR. MARTIN: Your Honor, I'm going to object. I have
9 a reason for that. I don't know if I want to bother the jury
10 with that but it has to do with some of the ramifications of
11 her coming in as a substitute expert.

12 THE COURT: All right.

13 MR. BERNICK: Okay. Well, I can live without it, your
14 Honor.

15 THE COURT: Then sustained, and withdraw the question.

16 MR. BERNICK: I'll withdraw it.

17 MR. MARTIN: Thank you.

18 BY MR. BERNICK:

19 Q So, Dr. Elzinga, she says: These are not posted prices.
20 The transaction price is determined through competitive
21 processes, usually procurements.

22 When she's talking about the competitive process
23 following the price increase announcement, what is the process
24 for getting from price increase announcements to actual prices?
25 What's that? What is it?

1 A In an oligopoly it's the negotiations between the
2 oligopolist and its customers. So if the oligopolist announces
3 an increase of \$.06, that may be what the oligopolist as a
4 seller hopes to get, but then the negotiation process begins
5 that Dr. Marx describes here. And in an oligopoly, depending
6 upon market conditions and sort of who's got the stronger
7 bargaining position, that's going to be a function of market
8 conditions, whether the market is robust or whether the market
9 is in a lag, then you'd expect that actual transaction price to
10 perhaps go up \$.03, \$.04, a penny, or as she puts it here, it
11 may have no affect on transaction prices.

12 Q Going beyond the price increase announcements, have you as
13 part of your analysis studied negotiations in this industry?

14 A Yes, I have.

15 Q Let's turn to that subject.

16 Have you, in the process of studying negotiations,
17 looked at the testimony that's been given in this case by a
18 couple of the customers specifically?

19 A Yes, I have.

20 Q And whose testimony have you looked at in order to see
21 what's happening with the negotiation process?

22 A One of the customers was Mr. Pauley from Carpenter, and
23 another customer was Mr. Underdown from Hickory Springs.

24 Q Okay. If we focus in the first instance on Mr. Pauley --

25 MR. BERNICK: Can we show the Pauley slide.

1 Q This is from the trial transcript here, and it says:

2 (Reading) QUESTION: And really as an inducement, what
3 you would do is that you would, in your discussions with the
4 suppliers, you would try to induce them to do better than their
5 competitors by offering them more volume? Correct?

6 The witness says: That would be one thing to offer
7 them.

8 Did you see that testimony?

9 A Yes.

10 Q Okay. What was the significance of that testimony from
11 your point of view?

12 A Well, here's why testimony like this, this is one example,
13 which is of interest to me as a economist, I'm trying to figure
14 out, hey, is the game rigged by cartel or are the customers and
15 the sellers negotiating?

16 And so here's an important customer, Mr. Stanley
17 Pauley of Carpenter, and he's saying that he has inducements
18 that he can offer to try and get better prices. He gives an
19 illustration of one of them, a very common one, and he says,
20 look, I'll give you more volume if you cut the price to me and
21 give me a better price, I'll give you more business.

22 Q Okay. I would ask you to, did you look at also the
23 testimony of Mr. Underdown who came here to testify live for
24 Hickory Springs?

25 A Yes, I did.

1 Q I want to ask you a few questions about the testimony from
2 Mr. Underdown.

3 MR. BERNICK: And, your Honor, if you'll give me a
4 moment here I seem to have misplaced the folder. So if I
5 can... I really did misplace it.

6 Let's show then Demonstrative Exhibit Number 9 which
7 deals actually with a -- I'm sorry, I forgot this -- with
8 another quote from Mr. Pauley.

9 Q (Reading) QUESTION: What we see from the documents that
10 you have before you is that there was a pretty severe pressure
11 on Bayer and BASF to be competitive in their prices. Correct?

12 And Mr. Pauley says: When you say "pretty severe," I
13 don't know what their circumstance was, but they obviously
14 thought this was better than not having any business.

15 Right. So you gave them a choice; either bring their
16 prices down to the point where you felt they were competitive
17 or you would take your business elsewhere. Correct?

18 ANSWER: Correct.

19 And from time to time, they would balk, they wouldn't
20 do it, and then they would be cut off. Right?

21 And the answer to the question is, "For TDI."

22 And Mr. Pauley said: It's a normal way of doing
23 business.

24 What did that tell you about the negotiation process
25 in this particular industry, Dr. Elzinga?

1 A Yeah, well, this type of dialogue, this type of statement
2 of how he buys is not what I would expect to find from a
3 customer who faces a cartel. In a cartel the game is rigged.
4 You don't negotiate, you take the prices that the cartel
5 offers. And here Mr. Pauley is saying, when there's pressure
6 on Bayer and BASF to be competitive, he'll negotiate with them.
7 And he'll say, look, if you don't give me a better price I'll
8 cut you off; meaning he's got other alternatives to go to.

9 If you're shopping from a cartel and the game is
10 rigged, you don't have other alternatives to go to because
11 everybody has rigged the game against you.

12 Q Now, Mr. Underdown from Hickory Springs; did you also look
13 at Mr. Underdown's testimony in this trial for the same
14 purpose, which is to see what happened in the negotiations?

15 A I did.

16 Q Okay. And with respect to Mr. Underdown, do you recall
17 what Hickory Springs does in connection with the matters that
18 bring us here today? What's their business?

19 A Sure. Hickory Springs buys the chemicals at issue in this
20 case, they buy the urethanes, and they mix them, that's
21 sometimes the term they use, they mix them into producing the
22 urethane foam that goes into everything from carpet padding to
23 mattresses to probably some of the chairs we're sitting on.

24 Q Okay. Do you remember what Mr. Underdown's role was at
25 Hickory Springs?

1 A Sure. He was the chief buyer, he was the one in charge of
2 buying the urethanes for Hickory Springs.

3 Q In his purchases of polyols and TDI, what percentage of his
4 own costs for polyurethane products were made up of these
5 chemicals?

6 A It was huge. He said it was like 80 percent of his costs
7 were these chemicals.

8 Q Okay. Mr. Underdown indicated that his purchasing strategy
9 was to have a, quote, primary supplier, as he put it for his
10 firm to be, quote, really important to one supplier.

11 MR. BERNICK: And we can supply the quotes if counsel
12 wishes.

13 Q And that he would also buy chemicals from what he called a
14 secondary or third tier supplier. Do you recall that?

15 A I do.

16 Q And do you remember who was the primary supplier for
17 Underdown --

18 A Sure, it's --

19 Q -- for Hickory Springs?

20 A -- BASF.

21 Q Do you recall why Hickory Springs didn't simply give all of
22 its business to BASF?

23 A Sure. In this industry sometimes there's accidents,
24 industrial accidents, plant shut-downs, and so Mr. Underdown is
25 saying -- and the way it's sometimes put in the business

1 world -- I don't want to put all my eggs in one basket, I want
2 to have some secondary suppliers in case my primary supplier
3 can't produce.

4 Q Did you end up focusing pretty carefully on the primary
5 supplier and the nature of their negotiated relationship?

6 A Yes, I did.

7 Q Okay. Do you recall his describing how his contract, that
8 is, Mr. -- Hickory Springs' contract with BASF, had what he
9 called a most favored nations clause?

10 A I do remember that.

11 Q Long before you came to be in contact with this case, were
12 you familiar with what a most favored nations clause is?

13 A Sure. They're common in the contracts with many
14 oligopolists to have a provision in it -- it's not uniform --
15 but to have a provision of a most favored nation clause.

16 Q Okay. What's the significance of that, if any, to you as
17 an antitrust economist?

18 A Well, the significance to me as an antitrust economist is
19 because it's a type of competition. So the most favored
20 nations clause says that if I'm -- if I'm buying from Mr.
21 Bernick and he decides to sell to Mr. Pendleton back there at a
22 lower price, he has to give that low price to me. So I've
23 basically negotiated a contract with Mr. Bernick that whatever
24 is the lowest price he gives to anyone else, I automatically
25 get that price. So if he cuts the price to somebody else and

1 he abides by the contract, he has to cut the price to me.

2 It's a form of having a clause in a contract. If
3 you're a customer, that means your seller offers a lower price
4 to somebody else, you get that price.

5 Q So, and if -- if the reason presumably -- you just tell
6 me -- what that means is that, what with respect to your
7 current supplier; that is, vis-a-vis competition, what does
8 that mean with respect to your current supplier if you have a
9 most favored nations clause?

10 A It means it's very difficult to have a cartel in that
11 because it's just one more avenue of competition that's out
12 there that isn't covered by price-fixing agreement.

13 Q Do you also recall that there was a meet-or-release clause
14 in the relation -- the contract between Hickory Springs and
15 BASF?

16 A I do remember that.

17 Q And what's a meet-or-release clause?

18 A A meet-or-release clause is another thing that Mr.
19 Underdown negotiated. It means, to use an example again of Mr.
20 Bernick and myself, if I had a contract to buy something from
21 Mr. Bernick and one of you offered me a lower price, I can get
22 out of that contract just like that, meet-or-release.

23 Q Again, what's the implication of that for cartel versus
24 regular oligopoly?

25 A Well, it's something that is negotiated between buyers and

1 sellers, it's a form of competition. Cartels try to eliminate
2 competition.

3 Q All right. What about signing bonus. Do you remember that
4 there was a signing bonus that Hickory Springs got from BASF
5 where BASF gave them a signing bonus of \$1.5 million. What, if
6 any, significance does that have for you?

7 A Sure. Signing bonuses I don't see very often. They're in
8 sports a lot. I have seen it just once in my other work in the
9 antitrust world. But basically it means that if you sign up to
10 buy from BASF, BASF will cut you a check for one and a half
11 million dollars. To an economist that's like a price cut. I
12 mean, you're better off having that one half million dollars
13 than not having it if you shop with BASF. So it's a form of
14 competition.

15 Q Okay. So we've got most favored nations, meet/release,
16 signing bonus. Are we done with all the different kinds of
17 discounts that Hickory Springs was able to obtain?

18 A No.

19 Q Let's just kind -- in the service of time, volume incentive
20 rebates. What are those?

21 A They're very common as a form --

22 MR. MARTIN: Your Honor, I'm sorry, I'm going to
23 object. I think we're now wanting opinions that weren't
24 disclosed in his expert report.

25 THE COURT: I'll see you at sidebar then.

1 MR. MARTIN: Thank you.

2 (At the sidebar.)

3 THE COURT: Okay. Go ahead.

4 MR. MARTIN: I didn't see any mention in the expert
5 report of the meet-or-release clause discussion. By the time I
6 realized it, it was too late. Now we're talking about what a
7 signing bonus is.

8 THE COURT: No, we are --

9 MR. MARTIN: Now we're on volume discounts. I don't
10 believe this is in the expert report, it's just not disclosed.

11 MR. BERNICK: So --

12 THE COURT: If it's not in the report, then I'll
13 sustain the objection. You know, unless you can show me that
14 it is. If it's in the report --

15 MR. BERNICK: The supplemental report is all about --
16 there's a huge section on buyer resistance which is what this
17 is all about. There was specific reference to Mr. Pauley in
18 the report. Mr. Underdown was obviously part of the mix, but
19 he came in and testified at trial, and under the rules provided
20 us within the scope of the report, an expert witness can refer
21 to matters that were either in the opinion as disclosed or that
22 come out in trial so long as they're the same subject matter.
23 Otherwise we would have the situation where the expert must go
24 through in the expert report and list any one of thousands of
25 pieces of evidence that would come before the Court. The rule

1 does not confine the expert to the literal --

2 THE COURT: So hearing you, I assume it's not
3 specifically in the report?

4 MR. BERNICK: That's correct, it's not -- Mr.
5 Underdown -- it's not specifically in their report. And again,
6 that's what the rule contemplates, it is within the scope.

7 MR. MARTIN: I don't think it is. I mean, this is a
8 general discussion about buyer behavior. Mr. Underdown
9 testified before. The discounts are not secret that came out
10 at trial. These are things that were known six, seven, eight
11 years ago. So if we're going to have an opinion, I mean as it
12 is, it's as a supplemental report so nobody has had a chance to
13 respond to it. We already had Dr. Marx explain this --

14 THE COURT: Look, I don't want to hold --

15 MR. BERNICK: That actual -- that last point, that is
16 not the way the record evolved. He was specifically given the
17 opportunity to provide a supplemental. They even moved against
18 the supplement and they lost.

19 MR. MARTIN: No.

20 THE COURT: You have how much more to go on this
21 witness?

22 MR. BERNICK: Not an insignificant amount of time. A
23 hour.

24 On this particular subject?

25 THE COURT: Right.

1 MR. BERNICK: There's very little that's really left.

2 THE COURT: Then withdraw it for now and let's see,

3 and when we take a break I'll have a chance to --

4 MR. BERNICK: I'll continue, but I'll jump over this.

5 THE COURT: Yeah, jump over this and go into an area

6 that there's no objection to.

7 MR. BERNICK: Can I say that to the jury, that we're

8 going to skip over this?

9 THE COURT: Just say you'll withdraw the question for
10 now, that's all.

11 MR. BERNICK: Okay.

12 THE COURT: That's all. You don't have to start
13 skipping over. I'm not going to -- I'll say it.

14 MR. BERNICK: Okay. It's always much better.

15 (In open court.)

16 THE COURT: MR. Bernick, then go into another subject
17 matter now to save some time.

18 MR. BERNICK: I will.

19 BY MR. BERNICK:

20 Q Just talk about the subject matter we covered so far, the
21 favored nations, the meet-or-release and the signing bonus,
22 what impact does that have on your views as to whether this was
23 a competitive business?

24 A Well, this is just not the sort of thing that you would
25 expect to find in a cartel. Cartels eliminate competition.

1 All of these discounts are forms of competition, price
2 competition.

3 Another way to think about it, the way economists tend
4 to think about it is if you're going to have a cartel, how
5 would you organize it if there are all these multiple discounts
6 going on?

7 Again, to go back to my point on monitoring and
8 discouraging cheating. How would you possibly monitor what the
9 final price was after all these discounts were given so you
10 could discourage BSAF if it was cheating on the cartel
11 agreement? It would be very hard to do.

12 Q I want to pursue that point a little bit,

13 So you have the existing price for a customer. You
14 have that announcement that says, plus \$.06. And between the
15 two, what is -- how does the customer, each customer know the
16 actual price that's being proposed? How does the customer
17 figure that out?

18 A Well, the customer knows that the seller has said: I'm
19 going to go up \$.06.

20 Q Right.

21 A But in this industry, that -- as the Underdown testimony,
22 Mr. Underdown's testimony indicated, Mr. Pauley's testimony
23 indicated, that's where the negotiations begin.

24 Q Right.

25 A So you've got this \$.06 out there. That's kind of like a

1 wish for the oligopolist, and then they start the negotiations.
2 And in an oligopoly, where that negotiation ends up, whether
3 it's \$.03, \$.05 -- Dr. Marx indicated it might end up zero
4 cents -- depends upon the negotiations and the discounts that
5 occur and how extensive those discounts will be, whether it's
6 closer to \$.06 or one cent in an oligopoly depends upon market
7 conditions. It depends upon whether the market is strong and
8 growing, it depends upon whether you're in a recession or not,
9 and that will give either the buyer or the seller kind of in
10 pure terms a stronger hand or a weaker hand in terms of
11 negotiations.

12 Q So we talked about discounts, and presumably they take you
13 from a higher price down to until you get to -- are you
14 familiar with a net net price?

15 A Yes, I am.

16 Q These different discounts, are they what lead to the net
17 net price?

18 A Yeah. The net net price is a term -- I'm not sure why
19 economists and other people started adding the second "net"
20 because it's kind of redundant. But the net price is the final
21 price after all the discounts and rebates and signing
22 allowances have been given that the customer actually pays.
23 That therefore means that's what the seller gets.

24 Q Now, the existing prices for each customer in this
25 industry, are you aware of whether or not they were publicly

1 known?

2 A No, they're not publicly known. They would be presumably
3 known between the individual buyer and the individual seller.

4 Q The \$.06 proposed increase that applies, would this be
5 generally known?

6 A The price increase announcement would be public, yes, that
7 would be generally known.

8 Q So we have public, we have, what, private for the existing
9 price?

10 A That's correct.

11 Q What about the net net price?

12 A Well, that's going to be a function of what that individual
13 buyer and seller negotiates privately in an oligopoly, that's
14 not going to be known to other oligopolists or other sellers or
15 other customers probably.

16 Q So where the price increase announcement proposal is public
17 but the existing and the final net net prices are private, tell
18 us what, if any, impact that has on being able to have a
19 cartel?

20 A Well, if you go back to what I had as the bullet points on
21 the central question, the economic theory is very clear on this
22 subject that once you have a cartel, there's an incentive to
23 cheat, and the cheating will unravel the cartel. So for the
24 cartel to be effective there has to be some way of monitoring
25 what those prices were that were purportedly agreed upon so

1 that you can try to check up on whether cheating is going on;
2 and if it is, have some mechanism to try and punish or thwart
3 the cheater, otherwise there's no sense having a cartel, it
4 just unravels.

5 Q Coming back to these negotiations, I want to show you
6 Elzinga Demonstrative Number 10. And could you tell us what
7 the subject -- first of all, who does this -- from whose work,
8 from whose papers does this come?

9 A This is also a quotation from Professor Marx.

10 Q She says: Buyer resistance -- and this is a published
11 paper -- limits the ability of firms to maintain collusive
12 prices through only tacit coordination -- and you have
13 brackets -- or strategic interdependence -- because buyer
14 resistance exploits the lack of communication, monitoring, and
15 enforcement characterizing oligopolies with strategic
16 interdependence.

17 The question that I have is: Tell us what, if any,
18 relationship there is between this idea of buyer resistance,
19 and what you observe with respect to the negotiations that you
20 told this jury about.

21 A Buyer resistance is just another term for what happens in
22 negotiations. So if someone says, hey, I want my price to go
23 up \$.06 and in the negotiating process you only get two cents,
24 that's because the buyer has resisted that \$.06 desire on the
25 part of the seller, and through different types of discounts,

1 whether it's a signing bonus or a volume discount or
2 meet-and-release or most favored nation, they have somehow
3 negotiated that using buyer resistance down to a lower price.

4 And so what Dr. Marx is saying here is in the case of
5 an oligopoly, that buyer resistance exploits the lack of
6 communication, monitoring and enforcement. Those are the
7 things the cartel has to have; an oligopoly doesn't have that.

8 Q So what was your observation with respect to whether there
9 was buyer resistance in this industry?

10 A There was. It was a function, in part, of the market
11 conditions. Sometimes the seller faced less buyer resistance
12 because the market was booming, and other times the seller
13 faced more buyer resistance because the market was not doing so
14 well. But in either event they're negotiating over that price
15 announcement increase amount, and that negotiation is what's to
16 my mind inconsistent with the cartel.

17 Q Let me ask you: Did you also look to see -- remember Mr.
18 Pauley talking about that they want to keep the business -- did
19 you also look to see whether there was customer switching in
20 this industry?

21 A I did. I did look at customer switching.

22 Q Okay. I want to show you Demonstrative Exhibit Number 11.

23 Does this come from your report in this case?

24 A Yes, sir, it does.

25 Q Could you tell the jury what this shows?

1 A Yeah. So --

2 Q Besides it matching your tie.

3 A It looks almost like modern art when you first look at it,
4 you think, wow, what does this show? So let me just try to
5 make it as painless as possible.

6 Along the horizontal axis we have time going from
7 January of '89 up to '08. So we basically have a decade here
8 of TDI sales, one of the prime products in this market, and
9 it's the sales to Foamex, one of the large customers of
10 different suppliers.

11 And on the vertical axis we don't have the price.
12 What we've got is the dollar volume of the sales by BASF. And
13 there's one color for BASF; Bayer, one color; Dow in green;
14 Huntsman in blue; and then Lyondell.

15 So you can kind of look at this over time and you can
16 see, well, how much sales did Dow have to Foamex over time?
17 And when they had a lot of sales the green line would be high,
18 when they had very few sales the green line would be low. The
19 same for Bayer and the other sellers.

20 So when I look at this as an antitrust economist, I
21 think, okay, somebody has argued that this industry has been
22 "cartelized," the game has been rigged. So I try to imagine
23 what the cartel meeting would be like.

24 So imagine that you're Dow and you're in a cartel and
25 you're selling to Foamex, and you look at this green line when

1 it's high and all of a sudden it drops down, sometimes
2 precipitously. And Lyondell might go up, the yellow line might
3 go up, or the red line might go up.

4 So if I were hypothetically in a cartel meeting and
5 I'm Dow, I'm thinking, well, what's happening here? I used to
6 have all these sales to Foamex and now they just dropped.

7 I'm going to suspect that somebody's cheating on the
8 agreement, somebody's competing on price and I'm going going to
9 want to know why. But not just Dow, other sellers are going to
10 want to know this. They're doing well, then they're not doing
11 well; they're doing well, then they're not doing well.

12 This just doesn't look like something that's
13 orchestrated and rigged. It looks like sales going up and down
14 between different vendors, different sellers of urethane
15 products; in this case, TDI.

16 Q Did you -- this is just one customer, Foamex. Did you look
17 at other customers as well?

18 A I did.

19 Q And what did you find? Did you look at, for example, MDI
20 and Celotex?

21 A I did, I found a similar pattern.

22 Q TDI to Woodbridge, another plaintiff?

23 A To that, a similar pattern.

24 Q What's the significance of seeing this kind of pattern as
25 you have in terms of the negotiations? Is there

1 customer-switching?

2 A Yes, the volume goes up and down between different vendors,
3 different sellers in this market. So this is just one part of
4 my analysis but it's a part of the analysis that to my mind as
5 an economist is a pattern that seems either inconsistent with a
6 cartel, or it's really hard for me to imagine how a cartel that
7 was effective would orchestrate something like this with all
8 the ups and downs.

9 Q Going back to Pauley, showing you Elzinga Demonstrative.

10 12 --

11 THE COURT: Mr. Bernick, why don't we take a break
12 right now. Okay?

13 Ladies and gentlemen, we'll take a 15-minute break and
14 we'll see you back here around 2 o'clock. Thank you very much.

15 THE COURT: Okay. We'll see you back here at 2
16 o'clock.

17 MR. BERNICK: Thank you.

18 THE COURT: You can step down. Thanks.

19 (Witness temporarily excused.)

20 (A recess is taken.)

21 (Proceedings resume - Jury not present.)

22

23 K E N N E T H G. E L Z I N G A, resumes, testifies further
24 as follows.

25

1 THE DEPUTY CLERK: Remain seated.

2 THE COURT: Bring out the jury.

3 THE DEPUTY CLERK: Please rise for the Jury.

4 (Jury present.)

5 THE COURT: Be seated, everyone.

6 Proceed, Mr. Bernick.

7 MR. BERNICK: Thank you.

8 DIRECT EXAMINATION CONTINUES

9 BY MR. BERNICK:

10 Q Dr. Elzinga, I want to cover a couple of things very
11 quickly and then catch up to where we were, which was buyer
12 resistance, customer switching.

13 Buyer resistance. You've discussed with the jury
14 Demonstrative 10 which appears on the screen now. And we kind
15 of went through it but didn't explain where you see -- I'm
16 going to hand you the paper on which this was taken by Dr. Marx
17 and have you explain. It says: Buyer resistance limits the
18 ability of firms to maintain collusive prices only through
19 tacit coordination, and then there's some brackets, "strategic
20 interdependence."

21 What were the brackets designed to indicate to the
22 reader of this slide?

23 A What they're designed to indicate is a similarity in
24 technical language. Tacit coordination is a game theory term.
25 Strategic interdependence is more a term antitrust economists

1 use but I see them as the same.

2 Tacit coordination is coordination that happens
3 tacitly. There's no explicit nature to it. It's the tacit
4 tit-for-tat; I'm trying to think what my rival is going to do.
5 My rival is trying to think what I'm going to do. That is
6 tacit coordination or what I call strategic interdependence.

7 Q So if the language in the papers, that is, authors talk
8 about tacit coordination but the brackets are your brackets,
9 that then gets the jury back to strategic interdependence, but
10 those are your words?

11 A Yes, that's correct.

12 Q Is the tame thing true at the end, you've substituted for
13 tacit coordination and indicated by the brackets the language
14 that you use here today?

15 A That's correct.

16 Q Okay. I just want to be clear.

17 And on customer switching. I think that there was
18 only one other thing that we wanted to show the jury which was
19 Elzinga Demonstrative Exhibit 12, Customer Switching.

20 MR. BERNICK: And this, your Honor, the source of this
21 is DX-2658 which I believe has been pre-admitted. We believe
22 that it is subject to being tied back.

23 Q Could you explain the significance of this little note that
24 you've captured in this demonstrative?

25 A Sure. We expanded the handwriting so it's at least more

1 visible and I think it's legible. This is Mr. Pauley from
2 Carpenter, and he's got this statement: "Can't buy from Bayer
3 at these," and you see the harsh mark, presumably stands for
4 numbers. "Can't buy from Bayer at these numbers."

5 And then, "I agree, cut them off," and then Mr.
6 Pauley's initials, indicating that we're in a negotiating
7 posture and we're just not going to pay those numbers, those
8 prices, so let's just cut them off and go with some alternative
9 vendor, some other arrival.

10 Q Dr. Elzinga, I want to go now a little bit further down in
11 this column with negotiations. And my question to you is this:
12 You have shown us some examples taken really from the
13 plaintiffs who testified in this case of negotiation and
14 competition. Did you do any work to do a broader survey of
15 what people said about whether the market was competitive
16 during the course of your own work?

17 A I did. This is where some of the economists who were
18 assisting me in my research in Princeton came into play. I
19 asked them to go through the -- really the entire record of
20 business documents to look for those examples which illustrated
21 negotiations, illustrated that the game didn't seem to be
22 rigged; that one seller was losing sales to another seller; one
23 seller was concerned about losing sales to another seller.
24 These were documents that were not prepared for litigation.
25 They're not lawyer documents, these are people who are in the

1 trenches trying to sell urethane products.

2 Q Did you ultimately -- did you working with those folks --
3 and I'm assuming a lot of the work got done by them -- did you
4 produce a summary that you called a compendium relating to
5 competitive activity among the Defendants (handing document)?

6 A Yes, I did.

7 Q Okay. Now, we don't have time to go through all of them
8 and the jury certainly doesn't have the patience for it, I
9 think frankly nobody would. But I want to show you a couple of
10 documents that are pre-admitted. The first one is DX-2102.

11 MR. BERNICK: And if you have an extra copy for the
12 witness?

13 But I'll just simply show them --

14 We would offer, I believe, 2102.

15 MR. MARTIN: No objection. And the last one was
16 pre-admitted.

17 MR. BERNICK: So you have no objection to that one
18 either?

19 MR. MARTIN: No.

20 MR. BERNICK: So that would be -- your Honor, we had
21 offered DX-2658. And I believe there's no objection.

22 MR. MARTIN: No, there's no objection.

23 MR. BERNICK: 2658.

24 Then we're offering 2102, which is a Bayer report, and
25 then 2101 are the two we're going to offer at this point.

1 MR. MARTIN: No objection.

2 (Above exhibits are received in evidence)

3 THE COURT: You can proceed.

4 MR. BERNICK: Okay.

5 BY MR. BERNICK:

6 Q So with respect to 2102 -- it may be easier if I just put
7 this on the ELMO.

8 Do you see, Dr. Elzinga, that this is a March 13th,
9 1998, Bayer Highlight Report for the month of February.

10 And I want to call out a couple of things. So if we
11 go to the page ending in 2000 -- in 005.

12 MR. BERNICK: Go to the last paragraph.

13 Q It says: (Reading) After a quiet January, competitive
14 activity picked up again in February on TDI pricing. The
15 Foamex purchase of Crain and subsequent talks with all
16 suppliers has disrupted the foam market this year. Some offers
17 seem to be preemptive to secure shares at accounts other than
18 Foamex in case the TDI producer should lose a position at
19 Foamex. BASF appears to be the most active with offers at
20 Flexible Foam Products, Burnett and Carpenter. This activity
21 has resulted in a \$.03 a pound decrease in TDI pricing at the
22 accounts affected.

23 With that in mind, first of all, could you just tell
24 us what the significance of that report from Bayer indicated to
25 you as part of your work on whether there was a cartel?

1 A Sure. Let me just say to preface my remarks, one sparrow
2 doesn't make a spring. So this is just one example but it's
3 one of many. It's a type. So we're talking about something's
4 happened that's disrupted the market.

5 Disruption, that's businessmen's language for there's
6 active price competition.

7 And who's the source of it?

8 Well, BASF appears to be most active; meaning they're
9 more aggressive on discounts or negotiating offers at Flexible
10 Foam Products, Burnett and Carpenter, and the ultimate result
11 in terms of what the market price seems to be moving to is a 3
12 percent -- excuse me, not 3 percent -- a three-cent per pound
13 decrease in TDI pricing. Not everywhere, but at those
14 accounts.

15 So this is an illustration of a market that's not
16 being rigged in some sense where there's no competitive
17 activity. There is competitive activity. This is just one
18 business document that illustrates it.

19 Q I want to show you Exhibit 2101 which is another report,
20 and that's the last one we're going to show. And I want to go
21 to page 006.

22 MR. BERNICK: The second paragraph there, just
23 highlight that one. Pull it out.

24 Q It says: (Reading) Market prices continue to erode. ICI
25 obtained the second position to Dow offered by Electrolux.

1 This includes 17.5 million pounds in the U.S. at Frigidaire.
2 We've been advised that our proposal in the U.S. was
3 approximately 10 percent higher than the winning bid by ICI.
4 BASF will lose their only U.S. appliance account, Frigidaire's
5 St. Cloud, Minnesota freezer plant. We have seen Dow pricing
6 at GE and it's significantly lower than our prices. Price
7 pressure is strong from ICI at Mabe.

8 Let me just ask you a simple question. This is an
9 internal document, is that how you understand it, within Bayer?

10 A That's my understanding, it's an internal document. It
11 goes to about -- I don't know, I just glanced at the number --
12 20 different people at Bayer are acquainted with this example
13 of pricing negotiations.

14 Q But they're talking to one another about their own
15 business?

16 A That's correct.

17 Q Okay. So when these business people are talking with one
18 another, is this discussion referring to a market that's
19 controlled or a market that's not controlled?

20 A This would suggest the market is not controlled. If the
21 market were controlled you wouldn't expect to find Bayer being
22 sort of perplexed at how how Frigidaire is buying all of this
23 and Dow's prices are is lower than our prices.

24 Dow's prices wouldn't be lower than their prices in a
25 cartel. The cartel agrees on prices. Dow shouldn't be

1 competing with Bayer if there's a cartel in operation here.

2 You shouldn't have terms like "price pressure is strong."

3 Price pressure is strong when people are negotiating. When
4 there's a cartel there's no price pressure, the price is fixed
5 by agreement among the cartel members.

6 Q How do we refer to this? Is this kind of like the internal
7 reports, internal -- this part of your analysis?

8 A I refer to it as internal reports about competition.

9 Q I'm going to anticipate -- and how did that fit in with
10 your analysis? What did that tell you about the negotiations,
11 this and all the other documents that you had in your
12 compendium?

13 A Well, it's just one more part of my analysis about cartel
14 versus oligopoly, and this part of the analysis indicated to me
15 that what I'm looking at here is an oligopoly and not a cartel.

16 Q Now we're going to get in a minute -- we'll set up a very
17 important distinction I think for the jury -- we're going to
18 get in a minute to a discussion of what you call "gum shoe
19 evidence." I'm taking it a little bit out of order but I just
20 want to set it up in contrast to these internal reports that
21 you're looking at.

22 Could you just briefly tell the jury what "gum shoe
23 evidence" is? We're going to get back to it, but just briefly
24 tell them what it is.

25 A It may not be the term lawyers use, it's a term that I use

1 and maybe this reflects my being a mystery novel writer. But
2 the "gum shoe" is a term for a private investigator or a
3 detective. So "gum shoe evidence" is the type of evidence that
4 in a cartel case is where you have, he said/she said. I said
5 there was an agreement; he said there was no agreement. I call
6 that gum shoe evidence.

7 And I distinguish that from the type of analysis that
8 I do as an economist. I am not trained when somebody says
9 there was an agreement on price and somebody else says no, we
10 didn't agree on price. I don't have any skill as an economist
11 to say who's right and who's wrong. To me that's like a
12 spitting match and the Court and the Jury decides that, but I
13 don't -- I don't weigh that evidence, and as an antitrust
14 economist I don't consider it. I'm aware of it because I read
15 the record in the case, but I sort of categorize that as gum
16 shoe evidence and I don't think economists have any expertise
17 in how to assess that.

18 Q Why isn't what is said in an internal document about the
19 marketplace, why -- tell us whether or not that's gum shoe
20 evidence; and if it's not, why not?

21 A Yeah. I don't consider this type of business document to
22 be gum shoe evidence. This is not a he said/she said kind of
23 thing. This isn't, to use an illustration in this case,
24 somebody says we -- we had a meal together at The Swan
25 restaurant and we agreed on prices, and somebody else said no,

1 we didn't agree on prices. That's the sort of thing that I
2 can't assess. That's for -- that's for the Judge and the Jury
3 to decide.

4 This is different to my mind. This is describing an
5 episode in the marketplace. It's not a he said/she said, it's
6 somebody at Bayer describing what they perceive to be happening
7 in the marketplace with important customers like Frigidaire,
8 and that somebody is giving a winning bid that's 10 percent
9 higher than somebody else's bid. That shouldn't be happening
10 in a cartel because there's no winning bid. The game is
11 rigged. The companies in a cartel have colluded with one
12 another. We shouldn't find language like: Dow pricing at GE
13 is significantly lower than our prices. We shouldn't find
14 language about price pressure.

15 But this document here -- this report that I did as
16 part of my analysis is just full of illustrations, hundreds and
17 hundreds of them like this that for me as an economist are not
18 he said/she said type of documents or where somebody says, we
19 agreed/ I didn't agree; he's right/she's wrong. I can't assess
20 that. But this I can look at as an economist and say, all
21 right, does that look like --

22 THE COURT: He's answered that three times.

23 All right, Doctor, you've answered it three times.

24 THE WITNESS: Thank you.

25 THE COURT: Go ahead, next question.

1 Q So another question.

2 You've got all these things talking about competition.
3 Did you kind of say, I'm not going to look at documents if they
4 say there was no competition?

5 A No, not at all. These were the documents that were
6 produced by people who under my direction went through the
7 record to look for documents that talked about competition.
8 The documents that I call the gum shoe evidence, and I
9 certainly saw them in this case, as I said -- forgive me, your
10 Honor -- I can't assess that.

11 Q Yeah. Okay. That's fine. Thanks.

12 Okay. Let's go over to the next question, which is
13 actual prices. And did you do an analysis of actual prices?

14 A I did.

15 Q Okay. In all these negotiations over the actual prices,
16 would you expect that the results of that negotiation would
17 follow any pattern; that is, did you assess, if the cartel
18 theory were accurate, if this were a cartel, did you assess
19 what kind of -- what you would expect to see in the actual
20 prices?

21 A If there were a cartel?

22 Q No. Did you look to see whether there were any patterns in
23 the prices when you went to look at the actual pricing, either
24 cartel or non cartel?

25 A Oh, yeah. Well, I went to see if there was a pattern

1 between prices and price increase announcements.

2 Q Okay. Before we get to the announcements themselves, what
3 about just the characteristics of the pricing. Did you do an
4 analysis about the pricing trends and whether they were up or
5 down?

6 A Yes, I did.

7 Q Okay. I'm going to show you Demonstrative Exhibit Number
8 13.

9 Is this, the bottom portion of the document, is this a
10 chart actually taken from your report?

11 A Yes, it is.

12 Q Okay. And could you tell us what this chart shows with
13 respect to prices, actual prices?

14 A Sure. So we've got the three important chemicals here in
15 the urethanes industry: MDI, and that's in blue, and we've got
16 the TDI in red, and polyol in green.

17 And what this chart does is to take the average
18 monthly price of these products over time, and blocked out is
19 the period in which the plaintiffs claim there was a cartel.
20 So you see the arrows indicating this cartel allegation period,
21 and so you can pick up before the cartel allegation period and
22 see what was happening with the average price of -- just take
23 the red line, of TDI. You can follow it through the whole
24 cartel allegation period. And then if you continue to follow
25 the red line, you see what the average price of TDI did after

1 the cartel allegation period.

2 Q Was there anything that you found to be notable about that
3 data just on the face of the data?

4 A Sure. What's notable is that prices, you know, they jiggle
5 around a bit, but if you look at the start of the cartel
6 allegation period and you look at the end of the cartel
7 allegation period, the prices are very flat, remarkably flat
8 actually given the length of time involved here. Again, they
9 move around a bit. But if you just the two, the ending point
10 and the beginning point, they're almost identical during the
11 cartel allegation period.

12 Q What about after the alleged cartel period?

13 A After, TDI is sort of flat for a while and then it really
14 jumps up. Polyol starts going up right after the cartel
15 allegation period, as does MDI.

16 Q So, well, during -- we've got before, during and then
17 after. Tell the jury why you found -- how that -- tell the
18 jury why that made a difference to you as an antitrust
19 economist, if it did.

20 A Sure.

21 So, let me see how I can explain this without going
22 into a lot of detail.

23 So typically when you teach cartel theory you teach
24 that after a cartel goes in place, prices go up. So if I were
25 to show this to a bunch of my students without the cartel

1 allegation period here and I asked them: When do you think
2 there was a cartel? They would probably say: Probably when
3 the prices were going up.

4 But here what kind of gets my attention is during the
5 cartel allegation period prices are pretty flat. When the
6 alleged cartel ends, prices start to go up. So you have to ask
7 yourself the question: Could there be a cartel that had flat
8 prices?

9 And the answer is yes, you could under particular
10 conditions, and here's where kind of basic demand and supply
11 analysis comes in to help you sort that out. Because you could
12 have a cartel conceivably where the prices were flat and they
13 were held there by the cartel. They would have otherwise gone
14 down. Something would have taken those prices down but for the
15 cartel.

16 So what would be -- the question I asked when I saw
17 this is: What would be the conditions on demand and supply
18 where -- what would we expect to find if a cartel was keeping
19 prices flat, keeping them from falling under competitive
20 conditions?

21 And there's two things. One is, I would expect to
22 find demand falling and, yet, notwithstanding the fall in
23 demand the cartel was somehow able to prop the prices up; or I
24 would expect to find costs falling, and notwithstanding the
25 drop in cost the cartel was able to keep the prices up; that

1 is, keep them flat.

2 Q Are those issues noted on the second version of the
3 demonstrative that we have before the jury, Elzinga
4 Demonstrative 14?

5 A Yes. Thank you. I didn't see you put that up because I
6 was talking to the jury.

7 Q I slipped it by you.

8 A Sure.

9 Those are the two things you would look at as an
10 economist. You would say, all right, if you had one of these
11 rare circumstances where a cartel didn't rise prices and the
12 prices were flat, what would you expect to find then? You
13 would expect to find decreasing demand or decreasing cost.

14 Q Did you take a look to see whether either of those
15 conditions was present?

16 A I did.

17 Q We have a demonstrative with respect to demand,
18 Demonstrative 15.

19 A Sure. So this is a demonstrative. Again, that alleged
20 cartel period is blocked out in red so we can focus on that,
21 and there's a lot of ups and downs here. But generally let's
22 just take TDI. This shows the volume of sales in millions of
23 pounds. There's a lot of this stuff produced. And it's pretty
24 flat. If anything, there's some demand growth.

25 If you take the blue line which is MDI and you go over

1 to the left-hand side and you sort of track that through, it's
2 fairly flat. If anything, it's gone up a bit. There's been a
3 little bit of demand growth with the polyols as well. But
4 clearly there's no great significant fall in demand happening
5 at this time. It is either flat or it's growing, it's going
6 up.

7 Q Did you take a look at cost too?

8 A I did look at cost.

9 Q What did you find with respect to cost?

10 A Okay. The first way to look at cost --

11 Q I'm showing you Demonstrative 16. I'm sorry. Go ahead.

12 A The first thing I did to look at cost was simply to look at
13 a very common index of prices for petroleum, sometimes call the
14 PPI, the Petroleum Producer Price Index. And I looked at this
15 because in a general way all of the primary urethanes products
16 are petroleum based. So I wanted to ask myself the question:
17 What was happening to the index of petroleum prices at the
18 time? Think of this as an index of crude oil would be one way
19 of thinking about it.

20 So if you look at just the PPI, it clearly wasn't
21 falling during this period. You can either characterize this
22 as relatively flat, or if anything, generally moving up. The
23 ending period for the PPI is a bit higher than the starting
24 period.

25 Q Okay. What about -- this is now petroleum. What about

1 other feed stocks -- well, I guess this one right here.

2 A Yeah.

3 Q Are other feed stocks also things that you looked at; that
4 is, benzene, propylene, toluene and crude oil?

5 A I did. All of these which are primary feed stocks, is the
6 term they use in the industry, or inputs to the production of
7 urethane products, benzene is in blue, propylene is in red,
8 toluene is in green, and then the crude petroleum PPI is in
9 there as well, I overlaid them all. This is really an
10 interesting exhibit, at least to an economist, because you do
11 see how benzene, propylene and toluene track the overall
12 petroleum price index very, very closely. And that's not a
13 surprise, but it's nice not to be surprised, they should
14 because they're all petroleum-based products.

15 What I was particularly interested in this was to look
16 at each one over time to see whether these important costs,
17 these important inputs in the production of urethane products
18 was falling or not, because that was what was at issue for me.

19 And what I found is, again, these are relatively flat
20 until you get to maybe the second half of the alleged cartel
21 period when the raw material cost indices are starting to trend
22 upward.

23 Q That's Demonstrative 17.

24 Let's go to Demonstrative 18. What does Demonstrative
25 18 show?

1 A 18 has the average monthly price of just MDI and it's very
2 flat. Benzene is in red, and you have the costs relatively
3 flat and then starting to move up for benzene towards the end
4 of the alleged cartel period.

5 Q I see that you've got the costs on -- the costs -- the
6 prices, the average prices are -- that's the black line.
7 Right?

8 A That's correct, that's the average monthly price of one of
9 the important products in this case, MDI.

10 Q And the scale for that, the vertical scale is over here.
11 Right? On the left?

12 A That's correct.

13 Q The costs are on a different scale. Those are an index.
14 Right?

15 A That's correct.

16 Q Are you trying to suggest that the costs are so high that
17 they're actually higher than the price of the final product?

18 A No, no, I'm not suggesting that. What I'm suggesting is
19 that if you tried to analyze the question, could you have a
20 cartel with flat prices?

21 Well, one way to think about that is, were costs going
22 down?

23 And somehow the cartel was propping them up. So what
24 I just looked at here is, benzene and those costs were
25 relatively flat and then they started to go up. The price

1 trend of MDI, benzene being an important input to producing
2 MDI, is relatively flat notwithstanding those cost trends.

3 Q So even though -- I'll just ask. You have different
4 scales. It would be fair to say -- tell me yes or no, or
5 something in between -- the purpose of this in showing them
6 together is to talk about the relative movement of the trends?

7 A That's correct.

8 Q Okay. Let's go to the next slide.

9 What about toluene? This is Exhibit 19.

10 A Yeah. So this shows the cost index for toluene which is an
11 important input to producing TDI. And we see that the average
12 monthly price of TDI during the alleged cartel period didn't go
13 up as you might expect during a cartel. Relatively flat. So
14 if you ask the question: Well, would it have gone down because
15 costs were falling and the cartel somehow propped it up? This
16 would say no, because costs were relatively flat. And then
17 towards the latter part of the cartel allegation period costs
18 for toluene started going up.

19 Q Take a look at 20. This is a different subject.

20 What was your ultimate conclusion with respect to --
21 if we go back to the slide that we began with -- this one
22 here -- did the -- is there evidence that the prices were
23 maintained flat and higher than they would have been during
24 this period of time, what did you ultimately conclude?

25 A I concluded using this demand and supply analysis that the

1 relatively flat prices were consistent with competition in an
2 oligopoly, not with prices that would have otherwise have gone
3 down except for an alleged cartel. The demand and the cost
4 side of the picture are consistent with prices being relatively
5 flat.

6 Q Did I get this right? Consistent with competition.
7 Demand -- and demand and cost factors are consistent with the
8 prices. Is that right?

9 A That's correct.

10 Q Okay. Let me ask you this: When it comes to this analysis
11 that you've done, I think you've told us that you did this
12 analysis in terms of demand and cost. Just so that we're
13 reading off the same page: How -- you know, what are these
14 concepts of demand and cost to an economist? How -- how do
15 they play in the economic analysis?

16 A Well, they play in because in a free enterprise economy
17 prices are determined by the interaction of demand and supply.
18 What's behind supply is cost. What's behind demand is the
19 state of the market, the number of customers, their tastes,
20 their preferences, the strength of the economy. All those
21 things factor into demand. But how demand and supply interact,
22 sometimes we use a curve to show you how they interact. That's
23 how prices are determined.

24 Q If we take the demonstratives that we've shown here, for
25 each one of these demonstratives is there a simple chart which

1 shows not the toluene and all the rest of the stuff, just the
2 chart of the prices, the chart of the costs and the like in
3 your report? You understand what I'm saying?

4 What I'm saying is, in your report if we just focus on
5 the data, does your report set out each of these charts, not
6 with the commentary but each of these charts? So we've got the
7 price charts and the cost charts.

8 A Yes.

9 Q Were these prepared under your supervision and direction?

10 A That's correct. I asked for them to be prepared and I
11 oversaw their preparation.

12 Q Could you tell the jury and the Court whether each of these
13 charts accurately summarizes the price, cost and demand data
14 that you have been relying upon for purposes of your testimony?

15 A So far as I know they do, yes, sir.

16 Q And to be clear, this would include these demonstratives,
17 the charts we've collected and the demonstratives beginning
18 with 13 and going up to 19. Fair?

19 A Yes, sir.

20 Q Okay. Let's take a look at what is going to be our last
21 big question, which is the relationship between the actual
22 prices in the price increase announcements. And we've been
23 through each one individually, but I want to take us back to
24 the plaintiffs' cartel theory as you understood it where you
25 said the understanding was the theory said, agreement to

1 coordinate price increase announcements and make them stick or
2 be effective to actual prices.

3 Did you do an analysis to test out whether that
4 relationship existed between price increase announcements and
5 actual prices?

6 A Yes, I did.

7 Q Okay. I've got on the board here Demonstrative Exhibit 20.
8 And could you explain to the jury what is reflected in
9 Demonstrative Exhibit 20?

10 A Sure.

11 THE WITNESS: If I could, before I go into this
12 particular one, let me just give you a preview. You'll see a
13 number of these, and if I can really get you to focus on this
14 one and understand what's going on, then you'll be happy to
15 hear I can go more quickly on all the others. Okay? So I'm
16 going to focus, take a little bit more time on this one so that
17 everybody understands what's going on because my hunch is Mr.
18 Bernick is going to show us the group of others and I'd like to
19 be able to not burden you with a detailed explanation of each
20 one.

21 A (Continuing) So what we've got here, this is for Dow. Mr.
22 Bernick's client, and it just pertains to MDI prices. And this
23 was a really important part of my analysis because the cartel
24 that's alleged in this case worked off of price increase
25 announcements. And as I indicated before, what's really

1 interesting to me is to see whether they stuck, whether they
2 had an effect in the marketplace or not.

3 So this blue line is the actual price taken from Dow
4 records of what they got in selling MDI over time. So we go
5 from '94 all the way over to the start of '04. So it's this
6 period where allegedly the market was rigged by a cartel.

7 So let me call your attention to the red lines. All
8 right? Because they're key to this exhibit and they'll be key
9 to the next handful of exhibits that you'll see as well.

10 Those red lines represent price increase
11 announcements. So that's why they always go up, they always
12 represent a price increase. So over on the vertical axis
13 you'll see the price per pound. So if we go all the way over,
14 when this analysis started Dow on average was receiving 75
15 cents a pound for MDI.

16 Now let's go over to the illustration that's been
17 marked here in April 2000. April 2000, Dow issues a price
18 increase announcement. That's April 2000. In March -- and
19 it's hard to pick that out exactly -- but we know from the data
20 behind this the average price that Dow was receiving for the
21 MDI that it sold was 73 cents. The price increase was for
22 \$.06.

23 So if the price increase announcement is somehow
24 rigged by Dow with all of its rivals, they've all said, all
25 right, this is a cartel, we're not going to negotiate this,

1 prices are going to go up \$.06, then we would expect the price
2 to go up to 73 plus \$.06 to go up to \$.79 in April.

3 But if we look here we see that the price is actually
4 \$.71. So focusing on that for a moment just to get you a
5 visual portrayal of what I'm trying to show which is a lot of
6 numbers in a way that I'm hoping everybody can understand, when
7 that red line goes up, and in particular, if the blue line goes
8 down which is the actual transaction price, what you have is a
9 situation where there was a price increase announcement and the
10 actual prices that Dow received went down.

11 So let's go over to one of July '94. There we see a
12 red line and a blue line almost on top of each other. So what
13 that indicates is an episode where Dow issued a price increase
14 announcement. It's shown by the red line, it's the third red
15 line over from the left. It's a price increase announcement.
16 And we then tracked what happened to actual prices. In that
17 episode the actual prices actually went up more than the price
18 increase announcement.

19 If you go over to the fourth red line from the right,
20 here's a case where Dow issues a price increase announcement
21 and the following prices are virtually flat. Nothing seemed to
22 happen, nothing seemed to stick. Then they issued another
23 price increase announcement, and there the prices went up in
24 accord with that.

25 So what could that be? I don't know what happened in

1 the first one and the second one. Maybe the market conditions
2 were such that Dow was actually able to get that price increase
3 to stick.

4 But if you look at the whole thing visually, the
5 striking thing to me, at least for me as an antitrust
6 economist, is all of these red lines that go up, and there's no
7 blue line on top of them indicating that the price increase
8 announcement had an effect on the prices that Dow was actually
9 receiving from its customers. In fact, over and over again you
10 see illustrations where the price increase announcement seemed
11 to have the opposite effect; the prices actually went down.

12 To me this is a sign that, this is evidence that
13 there's no cartel here that's coordinating price increase
14 announcements with the actual prices that people paid.

15 What this strikes me as being is an oligopoly where
16 somebody issue as price increase announcement, in this case
17 Dow, and then the negotiations begin. And sometimes as a fruit
18 of the negotiations the transaction prices go up, sometimes
19 they're stable, sometimes they actually fall.

20 Now, this is just one illustration for Dow with MDI.
21 But the reason I focus on this one is all the others that Mr.
22 Bernick may show us and ask me to comment on, I'll try to be
23 briefer because they're all laid out the same way. The axis
24 are the same, both the horizontal and the vertical axis.

25 Q I want to go back to the cartel theory, that you say you

1 understand, and your analysis in order to capture what it is
2 that you're looking for when you go and look at all these
3 different -- these different results.

4 For the cartel theory, you have price increase
5 announcements -- price increase announcements and you have
6 actual prices.

7 If there's a cartel, that's supposed to be make them
8 stick. If there's a cartel and you have a price increase
9 announcement of, say, \$.06, what is the function of that price
10 increase announcement? What's its role in getting to your
11 actual price?

12 A Well, if there's a cartel, the role of the price increase
13 announcement is to announce to all the other members of the
14 cartel: I'm going to go up \$.06, and I would expect then that
15 if the game is rigged, the price would go up \$.06. There would
16 not be negotiations and discounts and signing allowances and
17 all these sorts of things that we find in the industry that
18 keep the price from going up that amount.

19 Q So if there's a cartel and it's sticking, you're looking
20 for this kind of phenomena where they line up like over here,
21 where you get the red line and the blue line, they go up?

22 A That's correct.

23 Q If the price increase announcement is part of an oligopoly,
24 what is the role of the price increase announcement?

25 A The price increase announcement in an oligopoly is the --

1 the hope, if I may put it that way, by a seller: I'd like to
2 take my prices up \$.06 and I'm announcing that. And the buyer
3 then says, okay, let's see if you can do that. We're going to
4 start negotiating over that. And then the negotiations are
5 going to end up, again depending on market conditions, with a
6 price that's close to that \$.06, or not close to the \$.06, or
7 in some illustrations actually lower than the price increase
8 that had been announced.

9 Q Let's go back to this basic chart of oligopoly versus
10 cartel, and I'll hold it up. And I want to focus on that
11 bottom row where you said with oligopoly, "competition,
12 question mark, yes"; and then with cartel. "Don't expect to
13 see competition."

14 What is your test in looking at these charts, what are
15 you looking for as the marker of whether there is cartel or
16 whether there is competition? What's the marker?

17 A I'm looking for the red lines to overlap with the blue
18 lines.

19 Q A pattern with regularity or --

20 A Yes.

21 Q -- sporadically?

22 A No, I expect a pattern. That's what cartels do, they
23 eliminate competition. They're in agreement on price.

24 Q So you're expecting to see this kind of thing here, like we
25 have July 1995, this kind of -- this kind of result?

1 A Yes. I'm not sure I would expect the price to go up even
2 higher, but it did.

3 Q Okay. And if you had actually a pattern, you'd have going
4 up, went across for a while, it would be almost like a
5 stepladder, regular price increase announcements?

6 A Could be, yes.

7 Q Okay. What did you -- well, let's just go through a couple
8 more of these slides, and I think that consistent with your
9 prediction, everybody is interested in moving this along,
10 including I'm sure yourself so that we can conclude today.

11 But if you take a look at 21. Is 21 the same kind of
12 analysis?

13 A The same kind of analysis. It's also Dow but it's TDI. We
14 looked at MDI before. So just very briefly just to -- I'm
15 hoping to get everybody on the same page or slide here. The
16 blue lines are the actual prices; the red lines represent the
17 data drawn from the record of all of Dow's price increase
18 announcements. So if you go over to the one that been signaled
19 here, July --

20 Q Well -- yeah.

21 A -- July 2002, Dow has a price increase on TDI, it's for
22 \$.09. The June price was \$.75.

23 So by the plaintiffs' theory of the cartel I would
24 think, okay, the price was \$.75, there's now a nine-cent price
25 increase. If this price increase announcement is really the

1 vehicle by which the cartel operates, then I would expect the
2 price to go up to around \$.84. But the July price is \$.76,
3 just a penny more.

4 Q Let's go back to is a concept that you talked about before
5 in connection with this basic choice between oligopoly and
6 cartel, which is cheating. Cheating.

7 And am I correct that there's cheating when people
8 don't stick with the deal and they actually negotiate?

9 A That's correct.

10 Q Okay. Now, over here, if there were a cartel as of, say,
11 April of 2000, if we saw all these instances where the price
12 increase announcement was made and prices either went down or
13 up a bit and then back down, partially, nothing -- if we saw
14 all of these arrows or these price increase announcements where
15 it doesn't go like this, it goes, dong, dong, it goes up and
16 down -- what would that represent in your view if there were a
17 cartel?

18 When you see all these --

19 A I'm not sure I understand that question.

20 Q What --

21 A I'm not sure I understand your question. Maybe because I'm
22 a little bit blocked out from what you're drawing there by the
23 partition.

24 Q All these flags where you get the price increase
25 announcement but actual prices don't go up, what would those --

1 there -- if there actually were a cartel, what would those
2 represent?

3 I'm not sure if I'm --

4 A If there were a cartel --

5 Q Yes.

6 A -- that was going to operate off of price increase
7 announcements and the cartel members agreed to raise the price
8 \$.06 a pound, and then I looked at the actual prices and they
9 actually fell \$.03 a pound, it doesn't make any sense to me.
10 That's not what cartels do.

11 Q All these people would be cheating?

12 A I don't even know if that's cheating.

13 Q Okay.

14 A The price falls below what it was before?

15 Q Never mind. Okay.

16 A I mean, maybe it's cheating, but it would just seem to be,
17 why have a cartel if you're going to end up with prices even
18 lower?

19 Q Or for somebody who really believes there's a cartel, he
20 would be saying to his buddies, hey, wait a minute, you did it
21 to me once, you're not going to do it to me again, again, again
22 and again?

23 A Maybe so.

24 Q Maybe so, okay.

25 So would we see the same -- your analysis covered

1 Demonstrative 20 -- wrong button again.

2 21, 22, 23, 24, 25, 26; covered all those? Right?

3 A Yeah. As a teacher I prefer you go a little bit more
4 slowly, but okay.

5 Q Okay. We'll go back a little bit.

6 A If you go to Dow polyol and that will wrap up Dow. There's
7 Dow polyol. If you just glance at that and kind of eyeball and
8 say, how many times do I see a red line going up when a blue
9 line is stable or goes down?

10 And we get one illustration of it here where there was
11 a price increase announcement of \$.10. The price had been
12 \$.48. We would expect under the plaintiffs' theory of a
13 cartel, the way I understand it, the price should go up to
14 \$.58, but the price actually falls two cents. So that's one
15 illustration.

16 But every time you see a red line sticking up and the
17 blue line is flat or going down, I would have a very hard time
18 as an antitrust economist swearing that with there was a cartel
19 using price increase announcements as the tool or vehicle for
20 the conspiracy.

21 Q So the statisticians might say, Dr. Elzinga, why didn't you
22 do a statistical analysis? What would you say in response to
23 that?

24 A I would say this is a statistical analysis. These are
25 statistics on prices and price increase announcements. It's

1 not an econometric analysis but it's a statistical analysis.

2 Q Okay. And the test again that -- well, you've already said
3 the test you're using.

4 23. What's 23?

5 A Now we go to Bayer. So we've left Dow and we'll go through
6 these very quickly but maybe not as quickly as you had them.

7 So again, look for the red upward ticks in the price
8 increase announcements. You'll notice that Bayer, the lines
9 tend not to be quite as long, and that's because the price
10 increase were not as great on their announcements, but overall
11 you see announcements indicated by the length of the red line
12 and you find over and over again that the price did not match
13 that increase, and frequently it went down.

14 Q 24?

15 A 24 is BASF on TDI. Again, if I could just call your
16 attention particularly to the right-hand side for this one.
17 This tended to be kind of in a recession area, so you find over
18 and over again the red prices going up, the attempt to get the
19 price up by BASF, and the market forces were such that the
20 actual price that they received on average for TDI fell after
21 the price increase announcement.

22 Q 25?

23 A Here's Huntsman, same kind of thing, just eyeball that and
24 just see, all right, how many times does the red line coincide
25 with the blue line? Not very often.

1 Q With respect to this relationship; that is, price increase
2 announcements and actual prices, this relationship, what was
3 your conclusion as to whether this reflected cartel behavior?

4 A My conclusion is that this is inconsistent with the
5 existence of a cartel.

6 Q What about, is it consistent or inconsistent with the plain
7 old oligopoly?

8 A Yeah, that's what it looks like to me, a market with a
9 handful of sellers where the buyers and sellers are negotiating
10 using different types of discounts, negotiating off of price
11 increase announcements. Sometimes the announcements stick,
12 very regularly they do not.

13 Q Dr. Elzinga, all these charts that you've shown here,
14 forget about the labels, just talk about the charts: Are these
15 accurate summaries of data, pricing data that you -- that your
16 people reviewed in connection with the work that they've done
17 on this case; that is, the transactions that are reflected on
18 these charts?

19 A Yes. Yeah.

20 Q I want to show you, for 20 and 21 --

21 MR. BERNICK: Could we have the alternative versions?

22 Q You see those spikes there?

23 A Yes, I do.

24 Q Why do those spikes appear in a couple of the Dow charts,
25 in this version?

1 A Yeah, in this version. I'm not really sure in that
2 illustration. There were some price invoices that didn't seem
3 to have any sales behind them, and so in this version we took
4 them all literally. In the later version in cleaning up the
5 data where we just couldn't find sales numbers behind them, I
6 just can't explain it, whether it's noise in the data or what.

7 Q But you're presenting both of them here?

8 A Yes, I'm presenting both.

9 Q I want to take us to the conclusion of your testimony here,
10 if I could.

11 A series of questions about monitoring.

12 Again, going back, the plaintiffs contend that there's
13 no such thing as a perfect cartel, that all cartels have some
14 degree of competition. Are you familiar with that?

15 A Yes.

16 Q What do you say to the idea that, well, sometimes they
17 stick, sometimes they don't, so that's consistent with a
18 cartel. It sometimes works and sometimes does not. What do
19 you say to that?

20 A This is what I would say to that: If what the plaintiffs
21 are alleging here is -- well, they went for \$.06 but they only
22 got three, so aren't you better off having \$.03 than zero
23 cents? That's true as a matter of arithmetic, but it's not
24 good economics. The economic theory of the cartel -- and this
25 is borne out by studies of many cartels -- is, you have to have

1 some way of monitoring whether that price increase was
2 implemented; that is, what the people, what the members of the
3 cartel had agreed to. You've got to know: Did somebody follow
4 through on this? And if they didn't, what are we going to do
5 to try to deter them or police them or penalize them for not
6 following the agreement?

7 And I've seen nothing in the plaintiffs' theory of the
8 cartel that explains this monitoring/cheating process. So when
9 I see a six-cent price increase announcement and the price goes
10 up \$.03, I don't see, well, a kind of effective cartel. I just
11 see oligopolies the way they compete. And sometimes they're
12 able to take prices up, especially if the market is strong, and
13 then in many cases, as my charts indicated, they try a price
14 increase and the actual market price goes down.

15 Q And if there were an effective cartel, would that -- would
16 that be happening?

17 A No, it would not be happening.

18 Q Now, there's been some testimony by Mr. Stern in this case
19 that bears I think on your testimony. I want to show Elzinga
20 Exhibit 27. This is, yeah, the Demonstrative Number 7.

21 And I want to focus particularly on your statements
22 that sometimes markets can be strong. And what affect does
23 that have on the efficacy of price increases, their sticking?
24 What would you expect if the market is strong, what would you
25 expect be happening with price increase announcements?

1 A Well, as I indicated earlier, if the market is strong and
2 there's a price increase announcement of a dime, I would expect
3 that the seller who issued the price increase announcement has
4 a stronger hand in the negotiations because supply is
5 constrained. The market is strong, there's lots of people out
6 there trying to buy the product, and so why would we expect
7 that individual seller to start discounting heavily off of that
8 price increase because probably in an oligopoly the other
9 sellers are going to view the market the same way and they're
10 going to be try to move prices up.

11 If the market is weak, we're entering a recession or a
12 cyclical downturn. Then in an oligopoly the buyers have the
13 upper hand, and I would expect that the price increase
14 announcements are less likely to be followed and the actual
15 prices that we find in the marketplace will be well below the
16 announced price.

17 Q So when you see in some periods of time price increase
18 announcements sticking and prices going up, what would an
19 economist look to as a potential explanation of that phenomena?

20 A Well, you would look to, if you thought, well, this is just
21 an oligopoly, oligopolies have prices that go up, oligopolies
22 have prices that go down. When we find them going up, we
23 think, well, this is probably an area of strong demand or
24 declining costs -- excuse me -- rising costs.

25 Q You'll be looking to your market failures?

1 A Yes.

2 Q When you see by contrast, you mentioned that there was a
3 recession in that 2001 and 2000 -- or 2000 to 2001, we can see
4 here that prices -- there's a spike where prices have gone
5 down, and you see a bunch of price increase announcements that
6 aren't working. Again, what would you tend to look for in this
7 period of time if you're looking for an explanation according
8 to market forces? What would you be tending to look for?

9 A Those red lines and blue lines that you circled, that kind
10 of reflects a recessionary period, so I'm not surprised to see
11 that the price increase announcements, they really don't stick
12 at all.

13 Q Okay. Let's talk a little bit about -- let's talk a little
14 bit about contentions regarding the cartel.

15 MR. BERNICK: Could we have Exhibit 28, please?

16 Q I'm now going to be focusing on this side of the chart.

17 We've spent a lot of time, Dr. Elzinga, dealing with
18 your analysis as to whether it is a cartel or an oligopoly as
19 you've concluded. Would that be fair?

20 A Sure.

21 Q Okay. I want to talk a little bit more about the cartel
22 side of this equation. Okay? And in particular, I want to ask
23 you some questions about what's now on this side of the
24 characteristics of the cartel; that is, Exhibit 28,
25 characteristics of cartel.

1 Now, Dr. Marx has testified here that as we reviewed,
2 she has not offered an expert opinion about cartel here. Have
3 you nonetheless looked at what she's written to see what she
4 says when writes about cartel?

5 A Yes.

6 Q Could you just review -- this is from a paper from Marshall
7 and Marx -- could you review what she says in her publications
8 and whether or not you disagree with them?

9 A No, this slide is an area in which Professor Marx and I, I
10 think, are in agreement with cartels based on her publications
11 and my research and writing on cartels myself; that is -- and
12 most of this won't surprise you -- I've already alluded to it.
13 Cartels typically --

14 MR. MARTIN: Your Honor, I hate to intrude. I'm going
15 to object. I think we have another issue where we're going
16 over the scope of the expert report. I hate to do it so late.

17 THE COURT: Do you want to see me at sidebar?

18 MR. MARTIN: Please.

19 (At the sidebar.)

20 THE COURT: Okay. Go ahead. Mr. Martin.

21 MR. MARTIN: The issue is the bullet point that
22 says --

23 THE COURT: The what? Speak up.

24 MR. MARTIN: The issue is the bullet point that says
25 specific collusion, that there was a specific agreement.

1 Is that what was on the slide?

2 MR. BERNICK: Yes.

3 MR. MARTIN: Okay. That's not in here. There is some
4 material that Professor Elzinga pulled from an article that she
5 wrote for a Law Review Journal that talks about a plaintiffs'
6 prima facie case, which is a legal opinion, has no place in the
7 expert report.

8 What are you pointing me to?

9 MR. BERNICK: This is page 27. I'm on page 26.

10 MR. MARTIN: Show me on 26 where --

11 MR. BERNICK: The very first sentence.

12 You can see the reference to explicit collusion, and
13 there's a discussion about the fact that that's what's being
14 alleged here. And again, this was all about explicit collusion
15 and it's right in the report.

16 MR. MARTIN: The problem is, what is an explicit
17 agreement is a legal question. This doesn't talk about how she
18 defines an agreement, whether it's a wink, a nod or a grunt.
19 We're now creating something that's much more of a legal issue
20 than an economics issue and it's not one that was raised in
21 this report. Yet, the book is about explicit collusion. That
22 doesn't open the door to everything in the book.

23 MR. BERNICK: I didn't -- first of all, he came in
24 saying it wasn't in the report. It's in the report.

25 MR. MARTIN: No.

1 MR. BERNICK: Excuse me.

2 Now he's saying, well, it's a legal conclusion.

3 THE COURT: I'll allow it at this point. Let me see
4 what the next question is.

5 MR. MARTIN: Okay.

6 THE COURT: I'll allow it.

7 MR. MARTIN: Thank you.

8 THE COURT: Also, if you want to go back to that other
9 subject I'll allow it but don't say you're going back to it.

10 MR. BERNICK: I don't really need it.

11 THE COURT: I don't think you do either.

12 This is off the record.

13 (Off the record discussion.)

14 (In open court.)

15 THE COURT: You can ask the question.

16 MR. BERNICK: If we could put the slide back up.

17 BY MR. BERNICK:

18 Q Again, I think that we were on cartels typically increase
19 prices. I think we talked about that in connection with the
20 flat prices.

21 A That's correct.

22 Q Go ahead.

23 A Dr. Marx and I would both agree that you could have a
24 cartel with flat prices under particular conditions and that's
25 why I didn't like the demand and supply analysis.

1 The next one, cartels need to make explicit
2 agreements.

3 Dr. Marx and I would both agree on that.

4 Q Let me hold you up on that.

5 You're talking as an economist. Fair?

6 A Yes.

7 Q Yeah. Thank you. The Court will instruct on the law, but
8 you're talking about as an economist?

9 A Sure. As economists, I think I and Dr. Marx would both
10 agree that the way we define cartels in economics is that
11 there's an agreement on price or some other competitive metric
12 like output or where you're going to sell, or to whom you're
13 going to sell. And I think Dr. Marx and I would both agree
14 that where there is a dispute among the parties as to one party
15 says, I agreed on the price and the other party says, no, we
16 didn't agree on the price, that neither one of us have the
17 expertise to resolve that dispute. That's not an economic
18 dispute.

19 Cartels need to detect cheating.

20 I'm very clear on that in my writing and Dr. Marx is
21 very clear about that in her writing. You can't have a cartel
22 if you have a lot of cheating going on. Both of us recognize
23 that once you raise the price to a cartel level you incentivize
24 each member of the cartel to cheat.

25 And Dr. Marx and I both have written, both agree,

1 we're both very clear I think that an effective cartel has to
2 have some way to deal with a cheater problem. You have to know
3 who's cheating and you have to have some way to penalize them
4 or deter them if you're going to have an effective cartel.

5 Q I want to switch to Slide 30.

6 In talking about things that -- did you reach
7 conclusions regarding things that should have been done in a
8 sense to analyze this issue of conspiracy if the plaintiffs'
9 experts wanted to do this?

10 And let me just be very clear. I'm only going to talk
11 about Dr. Raiff, because Dr. Marx stepped into the shoes of Dr.
12 Raiff. So did you reach any conclusion on whether Dr. Raiff
13 should have studied the connection between price change
14 announcements and actual prices?

15 A Yes, I did.

16 Q Okay. And what is the significance of what you have on the
17 board as Elzinga Demonstrative 30?

18 A Well, as I understand, in testimony from Dr. Marx, the
19 issue was raised: Well, Mr. -- referring to your expert on
20 that line, that is I. Okay? Just so we're clear on that.

21 Well, yeah, I mean there was -- because we know from
22 your expert's interview, that is, Ken Elzinga's interview with
23 Mr. Bernstein at BASF, that sometimes they -- referring to
24 BASF -- issued price increase announcements of 10 percent
25 hoping for 5 percent and then being happy with 4 percent, and

1 sometimes they issued price increase announcements just in an
2 attempt to keep the prices from going down.

3 And, as I understand that testimony, that is to
4 somehow indicate that looking at price increase announcements
5 and their effect really doesn't get to the issue here.

6 And I disagree with that. First of all, Mr.
7 Bernstein, when I interviewed him at BASF -- this was an
8 interview that I think took place in Wyandotte, Michigan if I
9 recall -- he was never contending that they went up 10 percent
10 and had an agreement with the other people to go down to five
11 or be content with the other firms in the industry, the other
12 four main sellers, to be happy with 4 percent.

13 He's talking about BASF as a oligopolist looking at
14 the marketplace, thinking, what can I do? And when market
15 conditions aren't that strong I may try for 10 percent, hope to
16 get five, and I engage in this negotiation and maybe I end up
17 with four.

18 So to my mind that's consistent with how an oligopoly
19 behaves. You would like to get 10 percent, you go into
20 negotiations with your customers, and because the game isn't
21 rigged by a cartel you've got to negotiate. And maybe you'll
22 get 5 percent, maybe you'll get four. Sometimes you don't get
23 any.

24 Q What about strategic interdependence; what would you say
25 about whether work should have been done by Dr. Raiff and then

1 picked up by Dr. Marx with respect to strategic
2 interdependence? What role should that have played in the
3 case?

4 A Sure. So let me set this out. I'm sure you can all read
5 about it but I'll read it as well just so you hear it out loud
6 and Mr. Perelli can put it in the record then.

7 In oligopolies, when somebody takes price up, a
8 producer takes price up, by and large other producers go along
9 with it. Do you agree with that?

10 So that's the question put to Dr. Marx.

11 And she says, no, I don't.

12 So in an oligopoly, if there's competition among firms
13 in an oligopoly. If other firms, if you're rivals attempt to
14 raise your price and you see a profitable opportunity to
15 undercut them to capture business, you would expect in an
16 oligopoly that firms would attempt to undercut one another.

17 And then Dr. Marx is asked: Why don't producers have
18 an incentive to always match a price increase announcement and
19 everybody wins?

20 And she responds: Remember, in the absence of an
21 agreement, if your rivals are raising their price, you have an
22 opportunity as a competitor to come in at a slightly lower
23 price and potentially capture a significant amount of business.
24 That's the force of competition.

25 Now, this is an area where Dr. Marx and I disagree

1 about how oligopolies behave. Because that scenario is
2 possible. But in an oligopoly, just as likely, especially if
3 the market is strong, that if your competitor raises price and
4 you see an opportunity to come in with a lower price and
5 capture business, you're also going to worry because of the
6 strategic interdependence that your competitor is going to
7 follow you down. So you might very well decide not to do that.

8 So I don't consider this a characterization of how
9 oligopolies would necessarily behave.

10 If you see your rivals attempt to raise a price, she
11 said, you would expect in an oligopoly that firms would attempt
12 to undercut one another.

13 That doesn't always happen. It can, but it can also
14 happen where the firms in the oligopoly, as they look at the
15 marketplace and decide upon these strategic interdependence
16 among one another they just decide to follow along or to match.

17 Q I'm going to close here. I go back to the very beginning
18 when we talked about what your role was in the context of the
19 other experts, and Dr. Marx had a model to talk about impact
20 and damages, Dr. Ugone is going to respond to that.

21 Dr. Elzinga, you were going to ask the question: Is
22 there a cartel? Was there the conspiracy or the cartel?

23 And just tell us what your answer is now. And I'll
24 put it in.

25 A There's not a cartel. This is a very conventional

1 oligopoly. I would put it as a professor: The evidence is not
2 consistent with a cartel hypothesis.

3 Q Okay. That's a little bit better than the lawyer who says
4 "No." Right?

5 Okay. So, now, Dr. Marx as we saw does not offer an
6 expert opinion on whether there was a conspiracy. And are you
7 familiar with the fact that she does the model and then says:
8 I attribute what the model shows -- the variance from the
9 model -- I attribute that to conspiracy, doesn't say what it
10 is, but says, that's what I attribute it to.

11 Are you familiar with that?

12 A I think so.

13 Q Yeah.

14 A She probably used the term "cartel." But if you're taking
15 conspiracy as a synonym, then I think that's accurate.

16 Q Okay.

17 MR. BERNICK: If we would show Marx's
18 cross-examination at 195.

19 Q So I asked her: (Reading) So I now want to ask, isn't it
20 true that this attribution, I think you said was an inference,
21 that she made.

22 And she said: Yes, it's not in the model.

23 The model doesn't make the attribution. Right?

24 She said: Correct.

25 So this inference I think you have referred to as a

1 process of elimination.

2 What do you think about that? No opinion that there
3 was a conspiracy. Attribution of statistical variance to a
4 conspiracy by inference using a process of elimination.

5 What do you think about that?

6 THE COURT: What does that question mean, "What do you
7 think about that?"

8 MR. BERNICK: "What is your view?"

9 THE COURT: Okay.

10 Q Do you have a view as an expert --

11 THE COURT: He didn't run any model.

12 MR. BERNICK: What?

13 THE COURT: He did not run a model. Correct?

14 MR. BERNICK: Absolutely.

15 THE COURT: Yeah. Okay.

16 MR. BERNICK: But again the model --

17 THE COURT: You're starting to -- well, okay. There's
18 no objection, so that's fine. Go ahead.

19 MR. BERNICK: Well, I'm asking as an economist, as an
20 economist: What about the idea of drawing inferences of
21 attribution from a process of elimination? Is that something
22 that --

23 THE COURT: Well --

24 MR. MARTIN: Never let it be said I don't take my cue.
25 I object.

1 THE COURT: Listen, he's now starting to opine on
2 whether or not a model can --

3 MR. BERNICK: No. I'll clarify, your Honor. I'm not
4 asking about the model.

5 THE COURT: Well, you are in a way.

6 MR. BERNICK: Well, I'm asking about: What sense does
7 it make as an economist to not offer an expert opinion on
8 whether there was a conspiracy, but to offer opinions as an
9 economist? Just as an economist.

10 THE COURT: I'll sustain the objection.

11 MR. MARTIN: Thank you.

12 MR. BERNICK: I don't know, I mean --

13 THE COURT: She ran a model.

14 MR. BERNICK: I don't --

15 THE COURT: -- and based on her expertise she rendered
16 her opinions which the jury has heard. He's rendered his
17 opinions based on his expertise. There's a little different
18 expertise here. Okay?

19 MR. BERNICK: Well, but I'm focused solely -- we know
20 that the model doesn't make the attribution. Right? Because
21 that's what she says. So all I'm asking is: As somebody who
22 is offering an expert opinion with respect to conspiracy --

23 MR. MARTIN: He wasn't offered as an expert on her
24 opinions.

25 MR. BERNICK: Your Honor, this is just argument. I

1 would prefer to do it -- we'll do it anyway you want. I'd be
2 happy to argue it here.

3 THE COURT: Do you want to see me at sidebar?

4 MR. BERNICK: I'm happy to do whatever you want.

5 THE COURT: Let's go.

6 MR. BERNICK: Let me try one more time, one more time
7 to avoid the sidebar and try to get done. We'll see if it
8 works. If it doesn't, it doesn't.

9 THE COURT: I don't mind. Go ahead.

10 BY MR. BERNICK:

11 Q I want you to assume that an expert economist does not have
12 an opinion as to whether there was a conspiracy. Are you aware
13 of any way as an economist -- I'm not asking you to address the
14 model or anything -- as an economist, does it make sense to
15 attribute behavior in the marketplace to a conspiracy where
16 there is no opinion that there was one?

17 THE COURT: Sustained.

18 MR. BERNICK: I tried.

19 THE COURT: You tried, but you didn't succeed.

20 Okay.

21 MR. BERNICK: Okay. Your Honor, we would offer -- we
22 have a series of exhibits to offer but we're happy to do it
23 later. Should I make the offer now and that way we can have it
24 as matter of record?

25 MR. MARTIN: You can offer them but I'd rather talk

1 about it --

2 MR. BERNICK: We'll just make the offer.

3 THE COURT: We'll reserve on it, and then you'll do it
4 before you rest.

5 You have cross-examination?

6 MR. MARTIN: I do, your Honor.

7 THE COURT: All right. Can you get started?

8 MR. MARTIN: Sure.

9 THE COURT: We'll break around quarter of because then
10 I was going to come back at 4 o'clock and try to go to five,
11 5:15 or so.

12 MR. BERNICK: Okay.

13 THE COURT: Is that all right?

14 Is that all right?

15 I did warn you the other day we'd stay here to five or
16 so.

17 All right.

18 MR. MARTIN: We'll need some time to clean up.

19 MR. BERNICK: We'll be very fast.

20 THE COURT: He has his helpers. Let's go, get the
21 helpers out here.

22 Don't let the boss do all the work, please.

23 CROSS-EXAMINATION

24 BY MR. MARTIN:

25 Q I hope the record reflects I did wear my Virginia tie.

1 A I did notice that when I first came in. I didn't know how
2 to interpret that, whether it was a slam about the Syracuse
3 game or not.

4 Q I know it was kind of rubbing it in. It was on purpose.

5 In the short time we have I want to quickly just
6 review how we got here.

7 THE COURT: You don't have -- you can go on, we're
8 just going to take a break in about 15 minutes and you can come
9 back if you need more time, go ahead.

10 MR. MARTIN: Well, I'm not going to be done in 15
11 so --

12 THE COURT: I know.

13 Q So if we can just pull up the slide and just figure on how
14 we got here.

15 Right? You began work on this case in, what, 2007,
16 2008 about. Right?

17 A It sounds about right.

18 Q Okay. Pretty long time ago. Right?

19 A It was.

20 Q Okay. And you got Dr. Raiff's report in May of 2011.
21 Right? Thereabouts?

22 A I don't keep these dates in my mind. I won't dispute them,
23 I'll assume you have them correct.

24 Q Trust me.

25 Then almost a year later you submitted your expert

1 report, right, that responded to Dr. Raiff?

2 A Yes, sir.

3 Q And you read his testimony, you read all of the things he
4 said in his report. Right?

5 A I think I did. I'm not sure I read all of his report, but
6 I read what I felt I needed to read to do my analysis.

7 Q Okay. And your report was pretty big, 125 pages, plus a
8 bunch of exhibits?

9 A That's correct.

10 Q Okay. And then you received Dr. Marx's disclosure -- oh,
11 Dr. Raiff wrote a reply report. You read that. Right?

12 A I believe so.

13 Q Then you got Dr. Marx's report in 2013. Right?

14 A Yes.

15 Q And you read and considered all of those reports, and you
16 got to file a supplemental report. Right?

17 A Yes, sir.

18 Q So you had the last word, so to speak? All of this --

19 MR. BERNICK: I object to this line of examination.
20 There's a whole history of Court Orders --

21 THE COURT: The last question is sustained. But as
22 far as the order of dates, et cetera, that's allowed.

23 MR. MARTIN: Okay.

24 Q And when Dr. Marx came into the case, you already knew who
25 she was. Right?

1 A I knew her by reputation. I don't believe we had ever met.

2 Q You already bought her book?

3 A That's correct.

4 Q All right. And this is the book -- we had the little
5 sslide -- this is the "valuable piece of scholarship." Right?

6 A I don't know about the slide.

7 Q Okay. Well, it was in your report. I'm sorry, we had a
8 slide the other day. You weren't here. That was unfair.

9 But you did write in your report that this book was a
10 "valuable piece of scholarship," the book that Dr. Marx wrote?

11 A Yes, I did.

12 I'm sorry, I just didn't know about a slide.

13 Q That's my fault. I apologize for that.

14 And those reports we can just assume, those contained
15 all of your opinions and the basis for them. Right?

16 A Yes, I think we can assume that.

17 Q Okay. And we're going to refer back to them throughout the
18 day, so I just want to make sure we knew where we are. We're
19 also, I promise, going to go back to the economics of
20 collusion. You can understand that Dr. Marx might not agree
21 with all of your interpretations of her statements. Right?

22 MR. BERNICK: Objection to the form of the question.
23 I'm not sure what it calls for. What's the foundation for it?

24 THE COURT: I'll allow it. Overruled.

25 Go ahead.

1 A I don't know whether Dr. Marx disagrees with the
2 interpretation I gave. Maybe she does. I haven't heard that.

3 Q Okay. Exactly.

4 MR. BERNICK: Your Honor, I move to strike.

5 MR. MARTIN: That's fair, that's fair.

6 THE COURT: Yes, we don't need comments.

7 Q I asked Dr. Marx, and I think it's fair to ask you, what is
8 your hourly rate?

9 A A thousand dollars an hour currently. I believe it was 750
10 when we started this.

11 Q And you know what econometrics is. Right? We talked about
12 this at the start.

13 A Yes.

14 Q And the application of statistics to economic issues.
15 Right?

16 A Well, generally, although as I indicated earlier, I have
17 applied statistics to economic analysis. It's just not
18 econometrics. Sometimes you draw the distinction between
19 econometrics and descriptive statistics. Econometrics
20 typically involves a model, testing a model; descriptive
21 statistics might not, it may just be the testing of a
22 hypothesis.

23 Q Okay. Descriptive statistics, that's what you call
24 eyeballing data. Right?

25 A You could refer to it as that. Descriptive statistics is

1 when you look at whether unemployment is going up or not and
2 you look at the unemployment rate over time, that's
3 distributive statistics. Most of what we do in statistics is
4 descriptive statistics.

5 Q And I'm going to ask you to, and I'll ask you to try and
6 keep your answers within the scope of the question, I know
7 you're a professor, you want to give low answers but I'm on the
8 clock here. Okay?

9 A I'll try.

10 MR. BERNICK: Objection.

11 THE COURT: Mr. Martin, you don't need to do that.
12 Come on.

13 Q So you reviewed the econometric model that Dr. Marx
14 sponsored as it bears on the question of the existence of the
15 cartel alleged by the plaintiffs in this case. Right?

16 A No, I really did not review the econometric model of Dr.
17 Marx. My understanding is that in the division of labor here,
18 that Dr. Ugone reviewed that and assessed it. As I
19 indicated -- I'll stop, I don't want to prolong the answer.

20 Q Thank you, I appreciate that.

21 Didn't you write in your supplemental report that you
22 reviewed the econometric model that Dr. Marx sponsored as it
23 bears on the question of the existence of the cartel alleged by
24 the plaintiffs in this case?

25 A I reviewed it. It was not my job to critique it or assess

1 it.

2 Q Exactly. So that was my next question. You weren't asked
3 to critique the model. Right?

4 A That's correct.

5 MR. BERNICK: Your Honor, I was precluded at their
6 request from asking Dr. Elzinga for anything relating to the
7 model, including attribution. He's now cross-examining him on
8 that subject.

9 THE COURT: He's not, not so far. I'll allow it.
10 I'll overrule the objection.

11 Go ahead.

12 MR. MARTIN: Thank you.

13 Q And you're not an expert in any kind of accounting either,
14 are you?

15 A No, I don't consider myself an expert on accounting.

16 Q You were not retained to express an opinion on the proper
17 measure of damages if the jury finds a conspiracy existed.
18 Right?

19 A That's correct.

20 MR. MARTIN: Could we pull up page 20 of Dr. Marx's
21 testimony. It was Slide 5.

22 (Mr. Martin confers with the tech off the record.)

23 MR. BERNICK: Line 5 I think it is.

24 Q So you talked a little bit about your understanding of what
25 Dr. Marx's view of the conspiracy was. Right?

1 A Yes, sir.

2 Q Okay. And you called it plaintiffs' theory of the case.
3 Right?

4 A I did refer to it as the plaintiffs' theory.

5 Q And this is what was on the slide. Right? It was an
6 agreement to suppress competition, efforts to achieve consensus
7 about price increase, and efforts to make to make those price
8 increase effective. Right?

9 A I wasn't here, but that's apparently what Dr. Marx said,
10 yes.

11 Q Well, that's your understanding, it was all of those
12 things. Correct?

13 A That's my understanding as to what she said, yes.

14 Q Now, as an economist -- I think we talked about this a
15 little bit -- you agree that cartels are bad. Right?

16 A They're bad for consumers.

17 Q Well, you've testified that cartels are bad. Correct?
18 Just -- they're just bad?

19 THE COURT: He's answered it.

20 MR. MARTIN: Okay. That's fair.

21 A Mr. Martin, they're pretty good for producers.

22 As an antitrust economist I focus on consumer welfare.
23 When you ask the question, "Are they bad," the reason people
24 enter into cartels is because they think they'll be good for
25 them.

1 Q Okay. Well, there are two reasons you've said that cartels
2 are bad for consumers. Right? I'll talk about them. I'll ask
3 you these questions, all right? That will be easier.

4 The first problem, firms that participate in a cartel
5 deceive their customers as to the true set of facts. That's
6 one of the problems with cartels. Correct?

7 A That's correct. Very rarely unless a cartel is legal, as
8 they were in Europe at one time, will the cartel announce to
9 their customers, oh, by the way, we are rigging the game
10 against you.

11 Q One of the hallmarks of collusion is that they generally
12 operate in secret. Correct?

13 A I'm sorry, one of the hallmarks of collusion, or a cartel?

14 Q A cartel. That's the word you prefer?

15 A Yes.

16 Q Okay. One of the hallmarks of a cartel is that it
17 generally operates in secret. Correct?

18 A That's correct.

19 Q And if this jury were to find that there was a cartel, the
20 members of that cartel deceived their customers about the fact
21 that these prices that the consumers were paying were the
22 product of collusion and not competitive behavior. Right?

23 MR. BERNICK: Objection. First of all, it asks the
24 question of if the jury finds, which we have not been permitted
25 to ask. Secondly, he's asking whether if the jury makes that

1 finding, that must mean that there was deception of consumers.
2 And that is (a) speculation about the jury, and (b) he's not
3 testified anything to do with communications with consumers.

4 THE COURT: Overruled. It's overruled.

5 By the way, I know you're tired but you can stand up
6 when you address the Court.

7 MR. BERNICK: I'm sorry. I'm getting a little casual,
8 I know.

9 THE COURT: I know. Let's not get too casual, all of
10 us.

11 A I'm sorry, Mr. Martin, could I hear the question again?

12 BY MR. MARTIN:

13 Q Sure.

14 If the jury finds there was a cartel, the members of
15 that cartel deceived their customers about the fact that the
16 prices that the consumer paid were the product of collusion and
17 not competitive behavior. Right?

18 A That's my understanding of the role of the jury, yes.

19 Q Well, is it also your understanding that that would be the
20 effect of what a cartel does to its consumers; it does deceive
21 them about the true state of facts?

22 A Well, if I understand your question, if the cartel is
23 operating in secret, which most of them do, then if that's what
24 you mean by "deception," yes, by definition the customers of
25 the cartel are being deceived. They think they're dealing with

1 vendors, suppliers who are acting independently instead of
2 rigging the game against them.

3 Q Now, in your writing -- we talked about your writings a
4 little bit, or you did -- you wrote about an electrical
5 equipment cartel. Do you remember that?

6 A Years ago I think I did.

7 Q That was a real world cartel. Right?

8 A Yes.

9 MR. BERNICK: Your Honor, I object. It exceeds the
10 scope of your Honor's ruling in limine regard to other cartels.
11 It is permitted only for purposes of qualifying purposes, not
12 for substantive testimony.

13 THE COURT: Overruled. A limited amount of inquiry.
14 Go ahead.

15 Q Did I get an answer? I'm sorry.

16 A I thought I answered your question.

17 Q Okay. And one of the hallmarks of that cartel, ones that
18 you studied upon which you base your testimony here, your
19 experience, was the extent to which the participants in that
20 cartel kept their conduct secret. Right?

21 MR. BERNICK: Objection. (a) lack of foundation, and
22 (b) it exceeds the Order. We're now into substantive testimony
23 about another case.

24 THE COURT: No, it's okay. Overruled.

25 A I'm sorry. Every time there's an objection I kind of -- I

1 want to make sure I get the question right. Could you just
2 repeat it to me again? I'm sorry.

3 Q It throws me too.

4 One of the hallmarks of that cartel, that cartel that
5 you wrote about, was the extent to which the participants went
6 to keep their conduct secret. Right?

7 A That's correct.

8 Q And in your writing about that cartel, one of the avenues
9 of secrecy was that the executives would leave their offices,
10 they would go to a pay phone and talk to each other to keep
11 their conduct secret from each other. Correct?

12 A I believe that's correct.

13 MR. BERNICK: Your Honor, we're now into the details.

14 THE COURT: I mean, you did bring up the fact that he
15 was an expert in a number of cases and they went to the Supreme
16 Court, and he was an authority on a number of other cases, so
17 some limited examination in this area I'll permit, that's all.

18 MR. MARTIN: That's my last question, your Honor.

19 Q Do you want to hear it again?

20 A Yes, sir.

21 Q One of the avenues of secrecy that you pointed out in your
22 writing about that cartel was that the executives would leave
23 their offices, go to a pay phone and talk to each other to keep
24 their conduct secret. Right?

25 A That's my recollection. Just in terms of the time frame,

1 this was a cartel that happened when I was in high school and I
2 wrote about it some time ago, but that's my recollection.

3 Q Are you aware that a former Bayer executive has testified
4 in this case to engaging in almost the same kind of conduct?

5 A I'm aware that there's testimony about people making phone
6 calls from pay phones. I'm not aware, as there was in the
7 electrical equipment cartel, that there's no dispute as to what
8 the conversations on the pay phones were about.

9 Q The other reason that cartels are bad for consumers is that
10 they stifle competition, and in that process they reduce
11 consumer welfare. Right?

12 A That's correct.

13 Q And cartels can raise prices above what they would have
14 been without collusion. Right?

15 A That's correct.

16 Q Now, we had a picture up here about cartels raise prices.
17 I'm looking at the board that used to be here. I'm sorry. I
18 threw you. But there was a board here that said: "Cartels
19 raise prices."

20 Do you remember that slide or that picture?

21 A Yes.

22 Q When you say "raise prices," you don't mean in absolute
23 terms, you mean above what would have been charged had there
24 been no conspiracy. Right?

25 A I tried to be clear on that in my direct, yes, sir.

1 Q And what the members do of a cartel is they come to some
2 sort of agreement not to compete so the prices go up and
3 consumers get gouged. Right?

4 A That's correct, if it's an effective cartel, consumers are
5 worse off.

6 Q And one place that you did agree with Dr. Marx is that
7 virtually all conspiracies are imperfect. Right?

8 A Virtually all economic behavior is imperfect in some way or
9 less desirable than we might want.

10 Q You agree with Dr. Marx, you wrote this in your report,
11 didn't you, that virtually all conspiracies are imperfect and
12 you agreed with her on that?

13 A I think I did. I don't know if those are the exact words,
14 but that's the sense of it, yes.

15 Q You have I think in front of you -- maybe you don't -- do
16 you want to see your supplemental report?

17 A I mean, if you're quoting my words I'll take your word for
18 it. I just don't have a memory that those were my exact words.

19 Q Can we then just at least agree with Dr. Marx that
20 virtually all conspiracies are imperfect?

21 A Yes.

22 Q All right. And you often see cheating, even in effective
23 cartels?

24 A There can be cheating in a cartel that is effective, yes,
25 sir.

1 Q And you talked about cheating. That's when members of the
2 conspiracy don't completely follow the agreement, they take
3 advantage of those price increases to get a little volume.
4 Right?

5 A That could be one example of cheating, yes.

6 Q Okay. And in some of the cartels you've studied, cartel
7 members decided it was more profitable to permit some cheating
8 rather than disrupt the conspiracy. Right?

9 A Yeah. I think that fits the OPEC cartel where the Saudis
10 decide, we know the Libians are cheating but we're not going to
11 do anything about it. The Kuwaitis know the Venezuelans cheat.
12 They decide not to do anything about it.

13 Q And evidence of cheating could look an awful lot like
14 evidence of competition, couldn't it?

15 A Well, that's a tougher question to answer. Cheating is
16 fundamentally different than competition because cheating is
17 shaving the price off of an agreed upon price that's the cartel
18 price. So in that sense it's fundamentally different than
19 competition. If what you mean by your question, is the very
20 existence of a price being cut, something that can happen in
21 competition or in cheating, the answer would be yes.

22 MR. MARTIN: Could we pull up his deposition, Volume
23 3.

24 THE COURT: Why don't we take a break right now for 15
25 minutes.

1 Ladies and gentlemen, we'll take a break for 15
2 minutes and then come back for the final session. Please don't
3 discuss anything about the case.

4 We'll recess, everyone, until 4 o'clock.

5 THE DEPUTY CLERK: Please rise for the Jury.

6 (The Jury leaves the courtroom.)

7 THE COURT: Doctor, you can step down.

8 THE WITNESS: Thank you.

9 (Witness temporarily excused.)

10 (A recess is taken.)

11 (Proceedings resume - Jury not present.)

12

13 K E N N E T H G. E L Z I N G A, resumes, testifies further
14 as follows.

15

16 THE DEPUTY CLERK: Remain seated.

17 THE COURT: Okay. Bring out the jury, please.

18 THE DEPUTY CLERK: Please rise for the Jury.

19 (Jury present.)

20 THE COURT: Be seated, please.

21 You can proceed, Mr. Martin.

22 MR. MARTIN: Thank you.

23

CROSS-EXAMINATION CONTINUES

24 BY MR. MARTIN:

25 Q When we left off we were talking about competition and how

1 it can coexist with collusion. You agree, do you not, with
2 that statement: Competition can coexist with a cartel. Right?

3 A I'm not sure I agree with the statement as it was stated,
4 or at least I would quibble with it. Cartels eliminate
5 competition.

6 (Mr. Martin confers with the tech off the record.)

7 A If this simply is a cartel perfect, then I think I'll try
8 to respond to that.

9 (Counsel confer off the record.)

10 Q You were asked, Professor Elzinga -- do you mind if I call
11 you "Professor"? That's my habit.

12 A That's fine.

13 Q You do agree, do you not, Dr. Elzinga, that competition can
14 coexist with collusion?

15 That seeing signs of competition does not negate that
16 there may be an effective cartel?

17 (Reading) ANSWER: Yes. If those signs of competition
18 would be, for example, cheating on the cartel by shaving price
19 or expanding output, that would be -- I think it was your term,
20 signs of competition that could, I guess your word was, coexist
21 or be part of a breakdown in the cartel agreement.

22 Do you stand by that testimony, sir?

23 A Yes, I do.

24 Q Seeing signs of competition doesn't negate the hypothesis
25 of a cartel. Right?

1 A No. I've tried to indicate that if there is a cartel there
2 might be cheating in a cartel because there's an incentive for
3 individual members of the cartel to cheat on the agreement.
4 That's what economics teaches.

5 Q Right. And in the economic literature and the study of
6 real world cartels, they show there are often periods where the
7 cartel is less effective. Right?

8 A They can be. There can be, yes.

9 Q And one of the cases you talk about in your classes is a
10 teaching case, you did it here, was OPEC. Right?

11 A Yes.

12 Q And that's a famous anti-competitive cartel of oil
13 producers. Right?

14 A That's correct.

15 Q And you used OPEC as an example of teaching for your
16 students. Right?

17 A That's correct.

18 Q So I'm going to ask you to teach us a little bit. Okay?

19 A Fine.

20 Q So do you recall in your deposition we did discuss the
21 effect of OPEC on oil prices. Right?

22 A Well, Mr. Martin, I'm going to ask a favor of you. Perhaps
23 when you say, do I remember in my deposition, it always makes
24 me think like you think I have a photographic memory about the
25 deposition.

1 I'm willing take your word for it about something
2 because I respect you. But bear in mind, I'm under oath. So
3 if you ask if I remember what I said in my deposition, I take
4 the question very seriously. And if I'm not sure I really
5 remember, I'm going to say I'm not sure.

6 I may have said that. I'm not saying I didn't. I
7 just may not have the memory.

8 THE COURT: Doctor, we understand. And if you're not
9 sure, then he can show you the deposition to refresh your
10 recollection, that's all.

11 THE WITNESS: Okay, great.

12 Q And I was trying to do that and not trying to shove it down
13 your throat. But I will pull it up for you. Okay.

14 A Thank you.

15 MR. MARTIN: It's 257 of Volume 3.

16 Q We're going to look at line 17.

17 I asked you: (Reading) What prices does OPEC effect?
18 Oil?

19 And you said: Crude oil.

20 And I asked: Crude petroleum?

21 And you said: Well, yeah, crude oil, crude petroleum.

22 Is that correct?

23 A That's correct.

24 Q Okay. And then I actually showed you a chart from your
25 expert report. And we saw it here today --

1 MR. MARTIN: Is there a chance we could pull it up?

2 Q It's over here.

3 This is from your expert report. Right? Crude
4 Petroleum Producer Price Index?

5 A Yes, it is.

6 Q And these are prices that were affected by OPEC. Correct?

7 A Yes, I believe OPEC affected those prices.

8 Q Okay. Now, you remember you talked about the flat prices
9 you saw in urethanes. Right?

10 A Yes, sir.

11 Q Okay. And I asked you: Will you look at May of '91, if
12 you go to '98, that kind of looks flat. Right?

13 A I'm sorry. The dates were May of '91 to what was the
14 ending date?

15 Q Right here. From right where it goes down all the way to
16 the end there.

17 A Oh, all the way to the end? Yes.

18 Q And I asked you: If it's flat, does that mean there is no
19 effective cartel. Right?

20 Do you want me to pull it up?

21 A If you would, yes. I don't remember I was asked that. I'm
22 not disputing that you did.

23 Q No, that's fine.

24 (Mr. Martin confers with the tech off the record.)

25 Q And I said (reading): Does that make OPEC an exceptional

1 example of a cartel?

2 And you will told me it's been a long time since
3 you've looked at OPEC.

4 And if we go to the next page.

5 A Give me just a moment to read what I said. Okay?

6 Q Sure, sure.

7 A If I can just have a moment.

8 Okay. I've read that.

9 Q I want to draw your attention to this part of the answer.

10 MR. BERNICK: I'm sorry, this is all part of one
11 answer, and I think the witness, it's actually important,
12 should be able to read the whole thing through because it
13 covers a lot of ground.

14 MR. MARTIN: Of course.

15 Q You tell me when you're done, Professor.

16 (There is a pause for the witness.)

17 A Yes, I've read it.

18 MR. BERNICK: I'm sorry. It continues on beyond line
19 13. If you go down it says, "uh-huh," and it continues.

20 Yeah, right.

21 Q Okay?

22 A I've read it, yes.

23 Q Go back up to 260, right here.

24 (Reading) But the fact that once OPEC is formed --
25 this is your answer -- and the price is fairly stable, we may

1 be looking at, with ups and downs due to changes in demand,
2 changes in different amounts of cheating on the part of the
3 Libians or the Venezuelas, the Nigerians who seem to be the
4 main cheater, that we get fairly constant prices over the
5 course of the cartel.

6 Right?

7 I'll keep reading.

8 (Reading) I mean, if you look at a price that's
9 already been escalated because of OPEC, I mean, when did OPEC
10 start? In the '70s I think?

11 We'll keep going.

12 (Reading) So it may be flat because it's already
13 scaled. But if you go back to formation of OPEC, you did not
14 find that the cartel started and prices were flat. They jumped
15 up. And that was part of the shock of the economy, was the
16 formation of OPEC. So to my mind, OPEC is a very consistent
17 example of what I've tried to express in my report.

18 And then I ask: Okay. So the prices we see in your
19 chart -- these prices over here -- that is a cartel holding on
20 to price gains?

21 And your answer: I think that explains a lot of it.
22 I mean, the price of crude oil, most petroleum economists
23 believe is, and has been for some time, well above the
24 competitive price, what the price would be absent the cartel.

25 Are those your answers?

1 A Yes.

2 Q Okay. And you agree with all of that. Right?

3 A There's one part you didn't read, and that is: "I don't
4 consider any of this an exception to the testimony I gave
5 here."

6 Q And I promise you I'm going to ask you about that
7 testimony. But I want to keep this in mind because we're going
8 to go back again and talk about some flat prices or what you
9 call flat prices in a broader context. Okay?

10 A Okay.

11 MR. BERNICK: Your Honor, I don't -- I'm not sure what
12 that was designed to do. I don't think there was any
13 impeachment or any inconsistency.

14 MR. MARTIN: It's a teaching example. We're going to
15 get to it.

16 THE COURT: Go ahead. Withdrawn. Go ahead.
17 Overruled rather.

18 Q You've heard this phrase "desperation" or "defensive
19 cartel." Right?

20 A Yes, I've heard the term.

21 Q And that's when tough times and low profits stimulate firms
22 into a cartel. Correct?

23 A That's correct.

24 Q People do this, right? Not companies. People start
25 cartels. Right?

1 A I'm sorry?

2 Q Cartels, when we talk about companies we're really talking
3 about people. Right?

4 A We can be, yes, or we may be talking about companies
5 depending on what the context is. I mean, there can be -- we
6 can talk about the OPEC cartel without talking about people, we
7 talk about countries.

8 Q In those situations, those desperation cartels, those
9 defensive cartels, cartels form to keep prices from falling
10 further than they would have if there was unrestrained
11 competition. Right?

12 A That's correct.

13 Q Now I want to ask you about your interview of a Dow
14 executive that you did as part of your development of your
15 opinion. Okay?

16 You have it over there. It's about -- it's an
17 interview of a man named Steven English and it should be in
18 that book. It's called tab -- "Interview of Steven English."

19 A This book?

20 Q Does that say your report's on it?

21 A I have two books here.

22 Q Do you mind if I come up?

23 A No, of course not.

24 Q It's right there.

25 MR. BERNICK: Which report is it? I'm sorry.

1 MR. MARTIN: It's from his initial report.

2 MR. BERNICK: Page?

3 MR. MARTIN: It's the notes of --

4 MR. BERNICK: Page?

5 MR. MARTIN: It's an appendix.

6 (Counsel confer off the record.)

7 Q I would ask you to go to paragraph 7.

8 A This is on page 4?

9 MR. BERNICK: Your Honor, I don't have a copy and I
10 therefore can't follow along.

11 (A document is handed to Mr. Bernick by Mr. Johnson.)

12 Q You're right, paragraph 7 is on page 4.

13 A Yes, I have that in front of me.

14 Q And Steven English was the, quote, product manager for
15 polyurethanes at Dow. Right?

16 A He was at Dow. I don't remember his exact title.

17 Q Okay. And you interviewed him as part of your developing
18 your opinion. Right?

19 A That's correct.

20 Q Okay. And one of the things he told you about Dow's
21 philosophy is that Dow is obsessed with margins. Do you see
22 that in paragraph 7?

23 A I do.

24 Q And in laymen's terms, margin is like profit?

25 A Yeah, in laymen's terms you can think of the margin as the

1 difference between the price and typically the variable cost of
2 the product. It's not the same as profit because it typically
3 doesn't include fixed costs.

4 Q Okay. And then a little bit further down he told you that
5 negative margins at Dow are not tolerated. Right?

6 A I believe so, that's what my notes reflect about my
7 interview with him.

8 Q Okay.

9 MR. MARTIN: If we could pull out Volume 1 of his
10 deposition so he can follow along, page 240, line 19.

11 MR. BERNICK: Which deposition is this now?

12 MR. MARTIN: Volume 1, the first one.

13 MR. BERNICK: The first deposition?

14 MR. MARTIN: The very first.

15 BY MR. MARTIN:

16 Q You've been deposed a number of times in this case, haven't
17 you, Professor?

18 A Yes.

19 Q And you interpreted what Mr. English is saying to you as a
20 company that does not tolerate negative margins. That if they
21 have a product line that is -- and the margins are negative,
22 he's got a real problem explaining that to his superiors.
23 Right? And it goes on. That's not inconsistent with high
24 volume.

25 MR. BERNICK: It's only part of the answer.

1 THE COURT: It's cross-examination right now.

2 Let's -- I mean, is there more to that answer than that last
3 line?

4 MR. BERNICK: Yes.

5 THE COURT: Then go ahead, put up the whole answer,
6 Mr. Martin.

7 MR. MARTIN: Sure.

8 MR. BERNICK: It continues.

9 MR. MARTIN: It goes on and on.

10 MR. MARTIN: Do you want me to read the whole thing?

11 THE COURT: Well, just put the portion that you want
12 to cross-examine him on. Let him see that.

13 And, Mr. Bernick, you will have a chance to bring it
14 up on redirect if you need to.

15 MR. BERNICK: Thank you very much.

16 THE COURT: Okay.

17 BY MR. MARTIN:

18 Q I'm sorry, I got distracted by all this.

19 The point is, you understood Mr. English as telling
20 you at Dow, if an executive had negative margins or had
21 problems with margins, he's got a real problem explaining that
22 to his superiors. Right?

23 A That's what Mr. English told me, yes.

24 Q He also told you -- this is paragraph 7(d) -- that
25 periodically Dow needed to reinvent its tools for managing

1 margins, and that included "chopping the tail," a phrase that
2 you understood meant, dropping business with unacceptably low
3 margins. Right?

4 A Yes, that's what my notes say.

5 Q In your evaluation of the record, you did find evidence
6 that Dow actually sacrificed volume for margin. Right?

7 A Yeah, I believe I saw evidence consistent with what Mr.
8 English said, that he used this term. I never heard it before,
9 that's why I put it in quotes in my notes, that you "chop the
10 tail"; that is, you may drop a product line that doesn't return
11 positive cash flow.

12 Q Right. Let's turn now to the cost and demand conditions
13 that you talked about in your testimony. Okay?

14 A Okay. May I put this away?

15 Q You may.

16 Now we talked about cost and demand conditions during
17 the conspiracy. In your reports, you didn't do any systematic
18 analysis of capacity or type capacity or excess capacity in
19 your analysis, did you?

20 A Not in that portion of my analysis, no.

21 Q In no part of your analysis did you do any systematic
22 analysis of when capacity was constrained, that means tight --
23 we can put this up, trial transcript, 4560 -- or there was
24 excess capacity.

25 (Reading) QUESTION: Would it be fair to say you

1 didn't do a systematic analysis -- well, let me read the answer
2 before that. Actually let's get the question before that.

3 MR. MARTIN: Oh, can we cut it down a little bit?

4 Start three lines down.

5 Q You were asked a question about excess capacity.

6 And --

7 A Mr. Martin, could I see what the question is though before
8 I comment on my answer? Or is it the question: "Would it be
9 fair to say"? I'm not sure what you're asking me to comment
10 on.

11 MR. MARTIN: Can I just take a moment? I have to talk
12 to counsel. There's a --

13 THE COURT: Go ahead.

14 (Counsel confer off the record.)

15 MR. MARTIN: I'm sorry.

16 Q And you said you couldn't tell from memory when capacity
17 was more constrained. There were times when there was excess
18 capacity.

19 And you were asked: (Reading) Would it be fair to say
20 you didn't do a systematic analysis of that?

21 And you said: That's correct. I did not.

22 Right?

23 A Yes.

24 Q Okay. So there's no systematic analysis of capacity in
25 your opinion?

1 A That's correct.

2 Q Thank you.

3 And we talked about -- you talked about demand.

4 Right?

5 A Yes.

6 Q And your view is that demand was mostly flat during the
7 conspiracy period. Right?

8 A That's correct, based on the volume data that I portrayed.
9 I think it's fair to say that generally during the period
10 demand was relatively flat.

11 Q And --

12 A -- or -- or if anything, increasing.

13 Q And if I speak over you, I apologize, I don't mean to be
14 rude.

15 In a general sense, the amount of car seats, the soles
16 of shoes, the insulation that goes into refrigerators was about
17 the same during the entire conspiracy period. Right?

18 MR. BERNICK: Objection. Lack of foundation.

19 THE COURT: Overruled. Go ahead.

20 A I don't think that follows. There may have been times when
21 there were more sales of insulation going into refrigerators or
22 automobiles or some of it going into mattresses or carpet
23 padding. That not only could be, I would suspect it is the
24 case. I was just looking at overall demand for urethanes in
25 trying to compare that with what was happening overall with

1 costs to see if the evidence was consistent with fairly flat
2 prices or whether the evidence was consistent with the fact
3 that prices would have otherwise dropped if in your contention
4 there was a cartel propping them up. That's all I was trying
5 to do.

6 (Mr. Martin confers with the tech off the record.)

7 (Counsel confer off the record.)

8 (Mr. Martin confers with the tech off the record.)

9 MR. BERNICK: I don't know if the witness can follow
10 this. We don't have just a question and answer posted that we
11 can follow along.

12 THE COURT: What's the question, Mr. Martin?

13 MR. MARTIN: Forget it, it's okay, we're fine. This
14 is too much hassle.

15 BY MR. MARTIN:

16 Q Your position is, demand was flat -- make it short --
17 throughout the conspiracy period?

18 A Yeah, I've said that many times.

19 Q Okay. And when you looked at Dow, you looked at
20 essentially output of Dow. Right? The production, actual
21 production?

22 A Not just of Dow but I did look at production, yes.

23 Q And Dr. Marx looked at a lot more factors. Right?

24 MR. BERNICK: Objection. This will ask for commentary
25 on the model exactly.

1 THE COURT: No. Not yet.

2 Go ahead.

3 Q Her demand included carpeting and furniture and auto starts
4 and those things. Right?

5 MR. BERNICK: Your Honor, again, this is directly
6 related to the variables in the model. That's the demand is
7 that he's talking about.

8 THE COURT: I'll allow that question.

9 Go ahead.

10 THE WITNESS: The question is allowed?

11 THE COURT: You can answer.

12 THE WITNESS: Sure.

13 A (Continuing) I don't recall from memory what specific
14 applications of urethanes Dr. Marx had in her model. I gave
15 illustrations of them in the answer you just showed of soles
16 for shoes and carpet padding and so on. All of that is
17 aggregated in the way I've looked at overall demand and supply.

18 If Dr. Marx is building a model for different
19 purposes, she may very well disaggregate that. I did not. The
20 figure I give in terms of overall volume is the whole kit and
21 caboodle, whether it goes to a refrigerator or whether it goes
22 to an automobile seat.

23 Q In your supplemental report you wrote that your views of
24 demand are consistent with Dr. Marx's views. Correct?

25 MR. BERNICK: Page, please?

1 MR. MARTIN: Page 6.

2 A With Dr. Marx's views as to what?

3 Q Demand.

4 A I may have to see the context in the report. But if Dr.
5 Marx is modeling demand to include a whole bunch of components,
6 then my views would be consistent that my view simply has all
7 of them in one number.

8 Q I'm going to put it up. You have it in front of you. It's
9 in that binder there, Supplemental Report.

10 A Mr. Martin, there are two huge books here that you gave me.
11 I don't know the details as to where -- what's in it. So if
12 you could help me with that, I would be very grateful.

13 So is it this one, or is it this one?

14 Q I'll try. This one. That says, Supplemental Report.

15 A Okay.

16 Q Page 6.

17 A It would help me. If you tell me which volume and if
18 there's a tab, then I can turn it to more readily because I
19 don't want to slow this down either.

20 All right. I have my supplemental report in front of
21 me. We're talking about what page?

22 Q 6, please.

23 And the last sentence you can see. Her -- Dr. Raiff's
24 own demand charts show that their own measures of demand were
25 either flat or increasing during most of that time.

1 MR. BERNICK: Your Honor, that was not the question to
2 which the report was posed as being impeachment materials. He
3 asked a different question. That's not proper impeachment.
4 Moreover, this is exactly the kind of thing that I would be
5 getting into in connection with the model that this Court --

6 THE COURT: All right, Mr. Bernick, I understand.

7 This is not the same question you asked him before you
8 showed him this line.

9 MR. MARTIN: You're right.

10 THE COURT: Mr. Martin, so withdraw the question.

11 MR. MARTIN: I withdraw the question.

12 BY MR. MARTIN:

13 Q Let's move on to cost then. Okay?

14 A Okay.

15 Q Demand is flat. Cost, your view is generally they're
16 increasing. Right?

17 A Well, generally flat. You get towards the tail end, for
18 some of them they seem to be increasing. They're generally
19 flat.

20 Q And for costs, you looked at toluene for TDI, propylene for
21 polyols, and benzene for MDI. Right?

22 A Yes, and I also looked at an aggregate cost index for
23 petroleum products. Those were the four.

24 Q So I'd like to take a look at a slide that was shown in
25 opening argument.

1 THE COURT: Is there a question?

2 MR. MARTIN: I'm waiting for it.

3 There it is. I'm sorry.

4 Has it been up for a while?

5 Q So this is a slide that was shown in opening argument that
6 show the market conditions during the actual price trends
7 during the time period of this case. Have you seen this slide
8 before?

9 A No, sir.

10 Q The first thing it says is: "Capacity tight."

11 That was an explanation for the actual -- well, let me
12 orient you. This is the weighted median price line from Dr.
13 Marx's model. You recognize that. Right?

14 A I'm sorry, I didn't hear what you said. It's the what?

15 Q It's the price line from Dr. Marx's model. Okay?

16 And this is explaining the actual prices during the
17 time period of the case. And the first one is: "Capacity
18 tight." Right?

19 MR. BERNICK: Your Honor, there is thus far zero
20 foundation for asking this witness those questions.

21 THE COURT: Go ahead.

22 Mr. Martin, I'll sustain the objection.

23 Go ahead.

24 Q Did you express the opinion in your report that the reason
25 prices went up in TDI from '94 to '96, because capacity was

1 tight?

2 A No, I did not.

3 Q If we go over here, did you express the opinion in your
4 report that prices were going down because of new capacity
5 expansions?

6 MR. BERNICK: That's not what that says, but again,
7 lack of foundation.

8 THE COURT: No, it's cross-examination. If he wants
9 to use this chart, if he's familiar with this chart -- you
10 know --

11 MR. BERNICK: I don't think it's been established that
12 he is. He just said he's never seen it before.

13 MR. MARTIN: This is same thing he talked about. This
14 is the model. The only thing that is added is --

15 THE COURT: It's the model -- if it's the model, then
16 don't -- Doctor, have you seen this chart before?

17 THE WITNESS: Not until today.

18 THE COURT: Okay. Just now?

19 THE WITNESS: Just now.

20 THE COURT: Okay.

21 THE WITNESS: I've never seen it before today, right.

22 THE COURT: If you have a specific question about
23 something on that chart, I may allow it, but you know, first,
24 you know -- go ahead, Mr. Martin.

25 MR. MARTIN: Well, that was my question.

1 THE COURT: All right.

2 BY MR. MARTIN

3 Q Did you express the opinion in your report that new
4 capacity expansions explained prices after 1996?

5 A No, sir. I thought I indicated earlier that the demand and
6 supply model that I did was based upon overall demand and
7 overall cost forces, it was not disaggregate to do look at when
8 capacity was high or when capacity was low.

9 THE COURT: Is there something? His report that you
10 can show him along the line that you asked him a question
11 about, did he say something in his report, you asked a
12 question. Is there something? His report?

13 MR. MARTIN: Yeah.

14 Q You've already testified there's no -- you did no
15 systematic analysis of capacity. My question was whether in
16 your report you actually said that "new capacity expansions
17 complain the price".

18 THE COURT: Yes, he just answered that.

19 MR. MARTIN: And that was --

20 THE COURT: In order to ask that question, did you
21 have something in the report that says otherwise?

22 MR. MARTIN: Just the fact that it's not in the
23 report.

24 THE COURT: Okay.

25 MR. BERNICK: And that again, this witness -- I'll

1 cover it on redirect.

2 THE COURT: All right.

3 MR. MARTIN: I'll move on to a different chart.

4 Q You're familiar with this chart, right, Professor?

5 A I'm sorry?

6 Q You're familiar with this chart. Right, Professor? This
7 is the econometric model that Dr. Marx and Dr. Raiff sponsored
8 on which you -- what you took a look at.

9 A If that's what it is, then I have seen it.

10 Q Okay.

11 A I mean again, remember, I'm under oath so if you put
12 something up here that doesn't have any identification who it's
13 from --

14 THE COURT: Doctor, we understand. We understand.

15 THE WITNESS: Okay, thank you.

16 THE COURT: If you're not familiar with it, say you're
17 not familiar with it. If you are, then you say, "I think I
18 reviewed it, yes."

19 THE WITNESS: Thank you.

20 A (Continuing) I think I've seen something like this, and
21 perhaps I've seen this.

22 Q You have the supplemental report. I don't want to mislead
23 you. The supplemental report, you have it right there in your
24 book. If you look at page 3.

25 A I have page 3.

1 Q Okay. You see there it says you reviewed the econometric
2 model that Dr. Marx sponsored as it bears on the question of
3 the existence of the cartel alleged by the plaintiffs in this
4 case. Right?

5 A Could you call my attention to the line? I don't see that.
6 It's on page 3 you're referring to?

7 Q It's in your supplemental report.

8 A That's what I have is the supplemental report. I'm looking
9 at page 3 and it may be there, my eyes aren't catching it. Can
10 you give me a line number?

11 Q One, two, three -- four lines down.

12 A Yes. That reads I have reviewed and evaluated Dr. Marx's
13 work as it bears on the question of the existence of the cartel
14 alleged by the plaintiffs in this case.

15 Q So you have seen the model? I just want to make sure
16 you're familiar with it.

17 A Yes, I think I've seen this chart.

18 Q Okay. Thank you.

19 MR. BERNICK: Your Honor, again, this is now, we're
20 into the model and attribution. Attribution is on that page of
21 his report. This door is now wide open talking about the
22 model.

23 THE COURT: He hasn't really -- go ahead, Mr. Martin,
24 I'll overrule it right now.

25 Go ahead.

1 Q Let me ask -- what I want to do is use this as a basis to
2 ask all the things we looked at in your analysis only showed
3 the actual price line, nothing showed the predicted price line.
4 Right?

5 A That's correct.

6 MR. BERNICK: That's a complete --

7 THE COURT: No. No, there's no question.

8 Mr. Martin.

9 What are you -- what are you asking him? I can't rule
10 until you -- you showed him that. He said he thinks he's seen
11 it.

12 Now what is the question?

13 MR. MARTIN: That was my question, your Honor.

14 THE COURT: All right.

15 MR. MARTIN: And I wanted to ask about this time
16 period, '94 through '96. Right here.

17 A Sorry. Just '94 to '96?

18 Q Just '94 to '96.

19 A Okay.

20 THE COURT: We're going to recess. We'll recess,
21 ladies and gentlemen, for the day. Okay?

22 We'll see you tomorrow morning at 8:30, and we're
23 going to have a full day. I anticipate we'll have full days
24 all week, so tomorrow morning, 8:30.

25 Please don't discuss anything about the case, and

1 we'll see you then. Be safe going home. Thanks a lot.

2 THE DEPUTY CLERK: Please rise for the Jury.

3 THE COURT: Doctor, you can step down. Thank you.

4 THE WITNESS: Thank you.

5 (Witness temporarily excused.)

6 THE COURT: Let me just see counsel at sidebar for a
7 moment, okay?

8 (Off the record discussion at sidebar.)

9 THE COURT: Okay. We'll see everybody tomorrow
10 morning at 8:30 again. Okay?

11 MR. STREETER: Judge, I want to raise one issue with
12 you that is going to come up with the Pauley deposition which
13 is likely to play tomorrow. There are four documents that the
14 plaintiffs have informed us that they have objections to that
15 are in that deposition, and I just wanted to either talk about
16 it now or in the morning, whenever your Honor wants.

17 THE COURT: No, I don't want to waste time in the
18 morning when the jury.

19 Everybody can be seated. Go ahead.

20 MR. STREETER: Here's the issue, and I think what I'll
21 do is just have him put up one at a time and we can talk about
22 them, we'll put them up on the screen.

23 Could you put up DX-8627.

24 Okay. So what this is, your Honor, is an exhibit
25 which Ms. Ginn is going to testify tomorrow as to the parts of

1 this --

2 THE COURT: Mr. Bernick -- didn't we just talk about
3 tomorrow with Ms. Ginn?

4 MR. JOHNSON: She's not --

5 MR. STREETER: Okay. But what I need to understand
6 is -- I understand the plaintiffs have an objection to this
7 exhibit being used during Mr. Pauley's deposition.

8 THE COURT: Okay.

9 MR. STREETER: And this history here -- I don't know
10 what just happened back there with respect to Ms. Ginn -- but
11 the plaintiffs object to this being displayed during the
12 deposition of Pauley.

13 The plaintiffs made all of these objections to Judge
14 Pisano. They objected to the testimony, they objected to the
15 things that Mr. Pauley -- that's Mr. Pauley's handwriting. He
16 wrote that on the exhibits during the deposition. They
17 objected to all of that in front of Judge Pisano. We
18 responded. Judge Pisano overruled their objections, and they
19 did not appeal those objections to your Honor.

20 And now they're trying to have essentially a third
21 bite at the apple. They had one bite with Pisano, they had a
22 second opportunity with you --

23 THE COURT: Is that true with the other charts as
24 well?

25 MR. STREETER: And there's a second chart which is

1 DX-8622, which has the same issue. And these are charts which
2 they've had forever --

3 THE COURT: All right, I heard you.

4 MR. STREETER: So the issue is, we thought we were
5 done with this fight when we had it in front of Judge Pisano
6 and they didn't appeal these rulings. Now they want to return
7 to it.

8 THE COURT: Okay.

9 MR. BERNICK: We used it in opening.

10 THE COURT: What's that?

11 MR. BERNICK: We also used this --

12 THE COURT: Go ahead.

13 MR. JOHNSON: That certainly doesn't make it okay.

14 But the thing here, your Honor, is not that -- we did
15 take the testimony to Judge Pisano and he ruled that the
16 testimony would come in, and we understand that. The question
17 is, is whether this comes in as evidence. That's the question.

18 And Judge Pisano wasn't --

19 THE COURT: In the --

20 MR. JOHNSON: -- wasn't being asked to look at that.

21 THE COURT: In the testimony, does he make reference
22 to these charts?

23 MR. JOHNSON: He does make reference to these charts.

24 THE COURT: How can his testimony be understood if he
25 doesn't have the charts?

1 MR. JOHNSON: He can show the charts but he can't --
2 we don't want it admitted into evidence.

3 Here's the situation. This was a chart which they
4 showed him. As you can see -- what happened to the chart we
5 were just looking at?

6 MR. STREETER: There are two of them.

7 MR. JOHNSON: Put the other one back up, please.

8 MR. STREETER: Put 8627 back up.

9 MR. JOHNSON: A very complicated chart, and we're
10 having an examination of an 80-year-old man, and Mr. Bernick
11 essentially asks him to write things on this chart.

12 They are not of his own volition. He literally is
13 being told by Mr. Bernick -- and I'll be happy to show you the
14 testimony --

15 MR. STREETER: Your Honor.

16 MR. JOHNSON: -- to write stuff on this chart.

17 MR. STREETER: That is word-for-word --

18 MR. JOHNSON: And he doesn't adopt what he's written
19 on the chart. And they are now attempting to get this into
20 evidence.

21 We understand that Judge Pisano allowed them to have
22 that testimony read. We object to this being an exhibit that
23 goes back to the jury.

24 THE COURT: Okay.

25 MR. STREETER: That is word-for-word the objection

1 they made to Judge Pisano about the testimony, and it was
2 overruled and they chose not to appeal it to your Honor.

3 THE COURT: All right. All right. I'll allow you to
4 make reference to this in the video. Whether it's going to go
5 into evidence or not, I'm reserving on it. Okay?

6 MR. JOHNSON: Okay.

7 MR. STREETER: Okay. The second one --

8 MR. JOHNSON: That would be the same thing with the
9 other chart, and the other two --

10 THE COURT: I want to hear what he has to say, what
11 his testimony was in relation to this chart and then I'll
12 determine whether or not I think it should be in evidence or
13 just he used it at a deposition, that's all.

14 MR. STREETER: We'll put them up on the screen during
15 the testimony and --

16 THE COURT: You'll have to, because would his
17 testimony be understandable without reference to these charts?

18 MR. STREETER: No.

19 MR. JOHNSON: No, clearly.

20 THE COURT: Okay.

21 MR. JOHNSON: Would you like a copy of the deposition?
22 I can give you the page references.

23 THE COURT: Don't we have it?

24 Well, you can give it to me.

25 MR. STREETER: Your Honor, you'll hear it tomorrow.

1 And by the way, tomorrow it's a lot clearer when you see the
2 video that Mr. Pauley is very much participating in this
3 process, answering the questions, nodding his head yes and
4 writing on the paper because he agrees.

5 THE COURT: Look, it's not that complicated. If his
6 testimony is going to be read or heard and he's talking about a
7 chart, the chart has to be visible.

8 MR. JOHNSON: Yes. We don't disagree with that.

9 THE COURT: Whether it goes into evidence or not --

10 MR. JOHNSON: Is another question.

11 THE COURT: I agree. I said I'll reserve on that.
12 That and the other charts. Whatever charts he refers to in his
13 deposition he's going to be allowed to refer to them in his
14 video here. Okay?

15 MR. STREETER: Just two other exhibits quickly and
16 maybe we can just have the same resolution.

17 They're two Chemical Week articles. He's asked about
18 them. They didn't object to the testimony. They did object to
19 the testimony and they didn't appeal it. We want to be able to
20 display those as well, and your Honor can decide later whether
21 or not they come into substantive evidence based on the
22 testimony.

23 THE COURT: When you say "display them," you mean he's
24 going to be on the video and you'll show him an article?

25 MR. STREETER: He's shown an article on the video,

1 he's asked questions about it and we want to put it up on the
2 screen.

3 THE COURT: Put what up on the screen?

4 MR. STREETER: The article that he was asked questions
5 about during the deposition.

6 THE COURT: Okay.

7 MR. STREETER: We can do this all later --

8 MR. JOHNSON: So --

9 THE COURT: Go ahead.

10 MR. JOHNSON: So the question is to Mr. Pauley:
11 Carpenter was receiving some new reports on this stuff.

12 And they flash these articles which are -- appear to
13 be an attempt to get before the jury additional testimony from
14 Larry Stern and David Fischer and the like that is quoted in
15 these articles.

16 We gave them two choices. We said, look, if you want
17 to show this testimony and flash on the screen that an article
18 existed, we don't have any objection. But this doesn't come
19 into evidence unless we have a limiting instruction. This is
20 not a compilation of data or anything. These are narratives,
21 hearsay narratives of people in the industry.

22 THE COURT: That's an article. Right?

23 MR. JOHNSON: Yes, they both are. They all are.

24 MR. STREETER: Two things about this --

25 THE COURT: Wait, Mr. Streeter.

1 MR. STREETER: Okay.

2 THE COURT: You're not -- obviously, if he's asked
3 questions in the video about these articles, then they're going
4 to be used in the video. Now, whether or not -- are you
5 seeking to have them put in evidence?

6 MR. STREETER: We are, yes.

7 THE COURT: Then I'll reserve on that as well. I want
8 to see what he says. I don't know until I see how it came in.

9 MR. JOHNSON: Thank you.

10 MR. BERNICK: I have one quick one it's going to come
11 up with Dr. Elzinga, if I can mention it very quickly.

12 This is PX-1443. Remember, this is the chart as to
13 which we did not object provided it wouldn't be used for the
14 examination of Dr. Marx. They want apparently to show this
15 document to Dr. Elzinga.

16 I don't know if there's any foundation for doing that,
17 but I suspect that this is going to end up being a prolonged
18 issue about, just like you saw the chart with the capacity and
19 the like, this is not his chart. It deals with the model, and
20 the question really is: Why are we doing this through Dr.
21 Elzinga? Because once again, it's designed to -- what it's
22 designed to show is that the model somehow is confirmed or
23 substantiated by the price increase announcements. That's the
24 only reason for having the price increase announcements appear
25 above the price line which is used for the model and the

1 but-fors that used for the model.

2 So inevitably by putting this out there they're asking
3 Dr. Elzinga to comment on the relationship between price
4 increase announcements and the model, which is exactly what Dr.
5 Marx said she didn't do. Remember, price increase
6 announcements not in the model.

7 So they're trying to get in through our non modeling
8 expert testimony that they feel will help their model even
9 though their modeling expert can't talk about it because she
10 didn't include price increase announcements. This is -- this
11 is -- I'm sorry, I'm done talking.

12 MR. MARTIN: We could have saved a few more minutes.
13 If we use this we won't have that but-for line up there. I
14 heard -- and I just told Mr. Bernick that we wouldn't do that.
15 If we talk about it, those price announcements, those dots are
16 the exact same price announcement. They're the stipulated set
17 of price announcements instead of looking at them company by
18 company basis --

19 THE COURT: The red line is the actual price?

20 MR. BERNICK: The red line -- again this is very
21 tricky -- the red line is the actual median industry price per
22 Dr. Raiff. So we have to be very careful. They're always
23 saying, well, it's not transaction price, this is an average
24 price.

25 And while these dots are up there, they do not reflect

1 anything about the effective dates, which are key. Because
2 remember, these all have effective dates. So you kind of sit
3 there and go sideways and say, well, is that the date of the
4 announcement, the effective date? Where exactly does it line
5 up?

6 You can't tell.

7 And this is going to be an invitation -- if you want
8 to examine Dr. Elzinga on actual prices versus price increase
9 announcements, he's got a chart that he knows. All that this
10 is designed to do is to bolster the testimony of Dr. Marx who
11 can't testify about it because she --

12 THE COURT: Take the bottom line out. Take the bottom
13 line out, the but-for line. You're going to take that out
14 anyhow.

15 MR. MARTIN: Absolutely.

16 THE COURT: And then I'll see what the questions are.

17 MR. JOHNSON: Your Honor, may I say, he went through a
18 whole bunch of charts with price increases on them and these
19 from the effective dates of the price increases on those marks
20 and he knows that. So for him to sit here you can't tell,
21 they're right on the effective dates of this price increases
22 and tell you how many suppliers went together on these price
23 increases.

24 MR. MARTIN: This is in evidence, by the way, it's in
25 evidence.

1 MR. BERNICK: In that's true, then what Dr. Elzinga
2 notes as the line is not the same as in line. This red line is
3 a different red line, it is Dr. Raiff's red line and they've
4 made a huge deal about the fact that Dr. Raiff's red line is
5 not the same as our red line. So to ask Dr. Elzinga about
6 this, just because the price increase announcements, if you
7 look at them sideways, we can figure out where they correspond
8 is pretextual. They want to bolster Dr. Raiff.

9 THE COURT: You heard my ruling. Take that line out
10 and then I'll see what the questions are and whether or not you
11 establish a foundation to ask those questions. Okay?

12 See you tomorrow morning at 8:30.

13 MR. BERNICK: Thank you.

14 (At 5:05 p.m., an adjournment is taken to Tuesday,
15 March 29, 2016, at 8:30 a.m.)

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